# MODERN BUSINESS

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# Modern Business

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AND FIRST EDITOR-IN-CHIEF
OF THE

MODERN BUSINESS SERIES

# Personnel Management

By

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Alexander Hamilton Institute
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# PREFACE

Man-Power is the key force in business and industry. Its importance in every field of action has been recognized from the very beginning of coöperative effort. It is not easy, however, to develop a comprehensive and satisfactory personnel policy and program. Many of the factors are still in the experimental stage. Others involve long periods of careful consideration and conscientious effort to install, build up, and operate. No cut-and-dried or ready-made system can be applied. Each organization must develop its own program, suited to its particular needs. Basic, fundamental principles, however, underlie all such attempts. If these principles are clearly understood and applied, plans can be evolved that will pay well, not only in indirect returns, but also in direct economies measurable in dollars and cents.

Good personnel administration is not mere kindness of heart, nor does it smack of dole or charity. Gifts and unearned awards are as distasteful to the worker as they are objectionable from the standpoint of the management. On the other hand, no personnel program aims to surrender the administrative function to labor. But mutual understanding and coöperative effort toward a clearly visualized common goal—success in business, and profit, progress, satisfaction, and happiness for all—are the direct re-

wards of a capable, sincere attempt to operate under a sound personnel policy.

This central thought has been kept clearly in mind by the author of the Text on "Personnel Management," Robert I. Rees, Brigadier-General, U. S. A., and Assistant Vice President of the American Telephone and Telegraph Company. His method of approach to the subject is new and unusually forceful. From many years of extensive experience as a General Staff officer of the United States Army, in charge of many personnel activities, he has drawn much material of unusual value. He was in direct charge of the educational and training work of the American Expeditionary Forces, in France, from the time the Armistice was signed until the American troops returned home. In this capacity, he administered the entire educational program for a total of 287,000 men, and lecture courses and other educational efforts for over 1,300,000 additional men.

On the basis of this experience, and later in his present position as Assistant Vice President of the American Telephone and Telegraph Company, whose pioneering, constructive developments, and outstanding success in this vital endeavor are universally recognized, he has come to occupy an authoritative position in the personnel field. He has been enabled, therefore, to visualize and present in a refreshingly new way the basic principles of personnel management.

Following the exposition of fundamentals in the

initial chapters of the Text, the author devotes his later discussion to a definite, practical explanation of the methods of applying personnel policies to secure the most immediate and effective results. The executive of the large organization finds here a wealth of useful material at his beck and call. The manager, superintendent, or supervisor in a smaller company, while he may not be able to adopt the entire program, nevertheless can readily extract the important elements suitable for direct application in his own concern, with commensurately beneficial results.

The author wishes to acknowledge his obligation to his associates in industry for helpful counsel and advice, and for the supplying of valuable illustrative material. He expresses appreciation to the American Management Association for the use of its reports, and to Dr. C. R. Mann, Director of the American Council on Education, for his studies in education and appreciation of educational values in job specifications. Special acknowledgment has been given throughout the Text to authors of standard works on personnel, whose writings have been referred to in connection with various divisions of the subject. The material thus contributed, together with that drawn freely from the author's own extensive experience, has been built into a comprehensive exposition that can be utilized most effectively in developing personnel management in any type or size of enterprise.

EDITOR-IN-CHIEF.

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# PERSONNEL MANAGEMENT

## CHAPTER I

### THE BUSINESS ORGANIZATION

1. *Man-power in business.*—Men, material, and money are the sinews of business, but the most important of these is men. Through capital investment, plants may be constructed and machinery and equipment physically organized, fully prepared for the maximum of efficient production or service. But all of this is dead material without the dynamic spark of human endeavor. We cannot even conceive of such a plant to exist without man's having first put his hand to its construction. Man-power must be combined effectively with machine-power to obtain production.

2. *Building the organization.*—The organization of man-power is fundamentally a division of labor. Let us consider a man of vision and courage, with a new invention, a new idea, or a new service, which can be developed for the benefit of mankind and with profit to himself. Capital has been secured to support his venture. Because he cannot do all the work involved alone, he knows that he must have personal

assistants. He may plan, but he must have someone to manage. Hence, he selects a general manager to place in charge of operations, an engineer to construct, equip, maintain his plant and to design the product, a works manager or superintendent to supervise manufacturing, an accountant to maintain records of revenues and disbursements, a sales manager to distribute the product, and so on, until the top of the organization is complete, each man having a specific job to do. Through the combined efforts of these executives the man with the original idea can accomplish the objective he has in view.

3. *Delegating responsibilities for business functions.*—The general manager will have more than he personally can do, so he must appoint department heads to perform certain functions that he delegates to them. The other executives must likewise break down their responsibilities and assign specific duties to assistants. In this manner, the division of labor is carried on, down through the levels of responsibility and authority to the great mass of general forces —the workers skilled in their crafts. Thus, the new organization is constructed. In organizations already existing, there must be a constant striving to perfect and maintain the structure thus built up. In this division of labor, the first duty of each official of the business must be to define clearly the duties of his subordinates.

4. *Assigning authority over operations.*—One of the remarkable developments of modern business is

the gradual disappearance of the owner-manager, submerged, as he is, in the ever-growing corporate form of organization. Through stock ownership, the owners of a business are numbered by hundreds and thousands, most of them far separated from its actual operation. Because it is impossible for these owners to run the business themselves, they select a few of their number, in whose ability they have confidence, as trustees. These men are known as the board of directors.

The members of this group are chosen by the owners not because they are experts who can run the business, but rather for their trustworthiness and broad judgment. Upon them is placed the responsibility of employing a man of knowledge, ability, and capacity, who they know is qualified to build up or maintain an efficient operating organization. This head of the business is usually called the president, and all the members of the organization are under his control. It is here all-important to realize that every member of a corporate organization, from the president to the latest-hired unskilled worker, is an employee. This fact is of profound significance in the consideration of all personnel problems.

5. *The pyramidal form of business organization.*— Every business organization is pyramidal in form, with the president at the apex and the broad mass of the general forces at the base. The typical organization can be illustrated, as in Figure 1, by means of a triangular diagram.

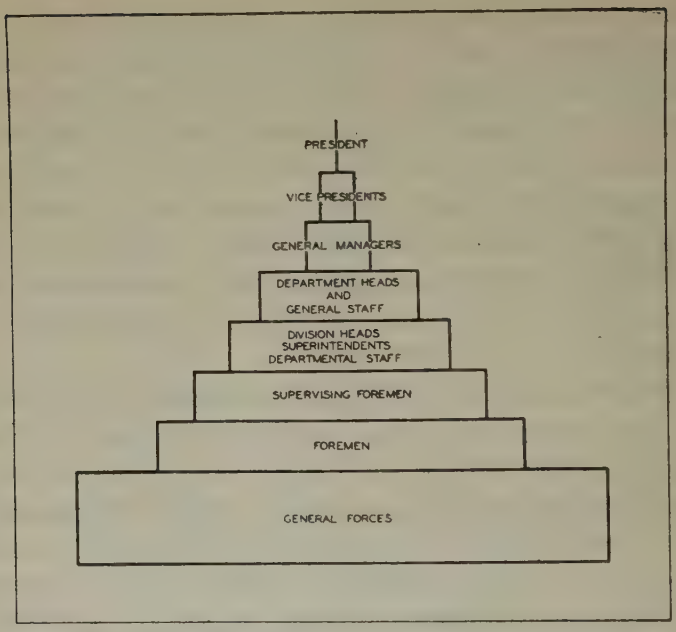


FIGURE 1—PYRAMIDAL FORM OF THE BUSINESS ORGANIZATION.

Between the two extremes, base and apex, are arranged the levels of supervisory and executive responsibility, such as foremen, general foremen, superintendents, department heads, general managers, and operating vice-presidents. This form of organization is not a static entity, but a dynamic mechanism—a steady flow of human endeavor. In its ideal, each individual is growing, developing, and progressing upward through the levels to the limit of his ability and capacity.

6. *Developing the individual for promotion.*—In

the upbuilding and maintaining of an efficient human structure for a business, let us assume a condition that, in fact, would be desirable if practicable—that every individual entering the organization start at the bottom. Each develops skill in his craft and, in time, reaches the highest, or senior, grade in the craft to which he has been assigned. Some of these men demonstrate qualities of leadership and are promoted to the position of foreman. Out of this group, carefully selected from the general forces, will emerge men with qualifications for higher responsibility, who will earn their promotion to the next higher level. This process should continue until one man reaches the pinnacle and directs the activities of the entire organization.

Because of the pyramidal form in all business organizations, it is inevitable that numbers of men will stop permanently at each level in the organization. The executive would, indeed, be happy if he could feel assured that, as each man stops, he has been developed to the full, and has reached the limit of his ability and capacity. Although we recognize that there are many individuals with inordinate ambition but small capacity, in general, most individuals, either consciously or unconsciously, realize their limitations, and when they have reached them, feel the satisfaction of full achievement, as they are also satisfied with their industrial, economic, and social environment. An outstanding leader of industry in a recent interview was asked, "What is success?" He replied,

"Success is reaching the limit of your capacity and ability. A man in a small job may be more successful than a man in a big one."

7. *The well-balanced working force.*—Is it not manifestly true, then, that the goal we are seeking in the personnel organization of a business or industry is a well-balanced force? The employing agencies are not always seeking, nor should they seek, the very best of human talent for their industry, but they should seek ability and capacity and skill, either actual or potential, so that there will be the appropriate number of workers who will take pride and satisfaction in the exercise of their crafts as their ultimate goal. Interspersed among those selected for the general forces, however, should be found men and women of capacity greater than that required by the craft of their calling, men and women invested with those qualities that will enable them, when the time comes, to assume positions of responsibility and leadership over their fellow workmen. These individuals will move on to the height of their ability and capacity through the ascending levels of organization.

8. *Employing at higher levels in the organization.*—It was said, earlier, that the ideal of personnel organization would be achieved if all persons newly employed should start at the very bottom of the organization and work their way up through recognized merit. Thus, each individual would realize the urge that is in us all for the kind of growth and

achievement that will be recognized by his fellow workers.

It has become evident, through long experience with the problem of employment, particularly in this age when time devoted to formal education has been so greatly increased, that men must be placed in business in accordance with their background. We find men of varying degrees of skill and attainment, secured either through formal training and education, or through experience elsewhere in business, being employed and eased into the organization at several levels above the lowest. This occurs as a regular practice in the higher grade skilled crafts, but in ever-decreasing numbers in the ascending levels of supervision. For this reason, we must revise our conception of the ideal pyramidal form of personnel organization, with all starting at the base, by indicating an inflow laterally into the several segments forming the different levels within the organization. In most industries this influx will be large in the upper grades of skilled craftsmen.

9. *Inflow of workers at supervisory levels.*—When we consider the levels above that of the general forces, practical experience has shown that the general forces do not and cannot furnish all the leadership required in industry, because of our social organization, particularly that phase of it included in our educational system. For a large number of positions in the management group, both line and staff, men with a background of specialized knowledge gained in schools

of higher education, or elsewhere, are essential for a smooth running and efficient organization. Therefore, and this is particularly true of large corporations, there will be an inflow into our pyramid, at about the foreman level, of a considerable number of men with specialized background, possessing potential leadership abilities, who are destined for responsible supervisory and staff positions. Extreme care should be taken to guard against the overemployment of this class of potential leadership. In no case should such employment procedure conflict with the opportunities for advancement of those coming up through the ranks.

10. *Men for executive positions.*—In addition to these two groups, the members of which flow into the organization at the lower levels, there will be a trickle of individuals, now and then, into some or all of the higher supervisory and executive levels. All those responsible for the well-being and morale of the existing organization, however, will use most sparingly this method of strengthening the organization. As will be seen later, it is the responsibility of supervisors and executives to develop and make ready, through their own efforts, men to fill all positions higher up as the vacancies occur.

11. *Motivating forces in human nature.*—A rough conception has been presented of the manner in which the personnel organization of industry develops a human structure—made up of individuals with varying capacities, abilities, emotions, interests, and

adaptabilities. To make this organized aggregation of human beings into a harmonious, team-playing whole is a challenge to the highest efforts of the best minds in business and industry.

This objective can be attained through the development of wise personnel policies. The aim of this Text is to discuss certain basic personnel procedures that have been tested in the crucible of experience and proved sound because of their appeal to the fundamentals of human nature.

12. *Basic factors in human endeavor.*—Psychologists are still at war over the characteristics, traits, urges, instincts, motivations, and desires of human beings, and they have become extremely cautious even in the use of these terms. Reflection, out of the experiences and observations of our own lives, however, leads to the conclusion that there are two basic factors that impel us to action, and bring to us the greatest satisfaction in life. One of these factors is an *urge to growth.* We wish to develop, to create, to make progress, to achieve, and to have our achievement recognized by our fellow men. The other factor is *security.* "Self-preservation is the first law of Nature." In security, man preserves himself, and his urge for security includes not only himself, but also those who are dependent upon him. We are in the midst of an industrial civilization, and in this economic existence we wish security in our jobs, with adequate compensation, security in sickness, accident and old age, and security for our dependents.

Response to these two motivating forces—the deepest desires in human nature—has caused wise executives, first, to pursue personnel policies that bring out and develop the best qualities in each individual, and give him opportunities for growth, and, second, to adopt measures that, without flavor of paternalism, will promote this feeling of security among their fellow workers.

Involved in the satisfaction of these two fundamental urges, and related directly to them, are procedures for selection, placement, training and development, promotion, provision for benefits (sickness, accident, death), pensions, encouragement toward health maintenance and thrift, and other factors that comprise the wide field of industrial relations.

## REVIEW

Discuss the importance of man-power in business.

Explain the pyramidal form of organization and state why it is dynamic.

Describe the ideal method of developing the individual for promotion.

Tell what is meant by a well-balanced working force.

Explain how and why the ideal pyramidal form of organization, with all employees starting at the base, is modified in practice.

Name the two basic motivating factors in human endeavor and explain how business attempts to give them scope.

NOTE.—The reviews throughout this Volume are for the personal convenience of the reader in testing his understanding of the chapter. It is not necessary or desirable for subscribers to submit written answers to the Institute except in a case where they may feel uncertain as to their grasp of the question under consideration.

# CHAPTER II

## THE JOB

1. *Primary importance of the human factor.*—Management has only recently begun to realize that the worker should receive the same careful consideration and study that is given to the two other important factors of industrial operation, money and material. Much harm has been done by considering and treating labor as a commodity. Long strides have been made, however, toward the realization that man in industry is a human being, and that all workers, regardless of their position, trade, or capabilities, have the same fundamental characteristics.

2. *Defining the responsibilities of the job.*—It is the basic right of every member of a business organization to know what his job is. Then he can visualize this job, know how big it is, realize just what he has to do, and set a goal for himself. As has been stated, it is one of the most important responsibilities of the management of an organization to define in complete detail the duties of every member of that organization so that the division of labor, or the breakdown of responsibility, is understood by all.

3. *The job specification.*—For defining the responsibilities of a particular job, no better term can be

used than that of "job specification." A job specification states the objectives of the job. In other words, it is a series of statements that define the essential things that should be done in performing proficiently the duties of a given assignment. It is a composite of the records of performance of numbers of individuals who are doing the same job. The best modern specifications outline not only the work to be done, but also the manner of performance. There has been much discussion over the question: Should we have job specifications or man specifications? If we include the "manner of doing," if limiting conditions and modes of performance are properly incorporated in the specification, anyone who does these things well has the proper qualifications.

Complete specifications for every type of job in a given industry, from the lowest level to the highest, should be set up. The summing up of all these specifications shows a total that defines the accomplishment of the whole organization.

4. *Specification for a simple job.*—An example of a more simply constructed job specification follows:

SPLICER'S HELPER.—The helper does the simpler forms of work necessary on cable splicing jobs located in the city-area construction force.

OBJECTIVES.—Apply, when necessary, any knowledge or experience previously gained in other employment. Develop proficiency in the work of each of the following grades, as a requirement for advancement to each succeeding grade.

GRADE D

(a) Keep immediate locality of work clean and orderly

(b) Do any simple work that splicers may order
(c) Place splicers' platform and erect windshield in aerial position
(d) Remove and replace manhole covers
(e) Test manholes for gas
(f) Clear manholes of water with hand pump
(g) Set up and maintain safety devices prescribed for cable work
(h) Give warning signals to highway traffic at open manholes
(i) Anticipate need for tools and materials and pass them to splicer when needed
(j) Care for splicers' tools, materials and cart
(k) Load and unload reels
(l) Render prescribed first-aid treatment in emergencies
(m) Follow accident prevention practices approved for splicing work

5. *Specifications covering increased skill.*—The splicers' helper in Grade D is the least skilled man in that work. He is, however, in line for promotion if he develops. Therefore, the job specification for splicers' helper continues through the grades. Without covering all of the items in the several grades, compare the following items specified in the highest grade of the same job with those given above, on the basis of increased skill demanded.

(a) Separate wires and make insulation tests
(b) Test wires for count of pairs
(c) Slip sleeves on and skin insulation of each wire, preparatory to twists
(d) Make twisted, wrapped and soldered, or soldered-sleeve joints in wires
(e) Wrap entire bulk of spliced wire with muslin tape

(f) Develop proficiency in all grades of this work, as a requirement for advancement to third-class splicer

Beginning with the specification of the simplest classification in a group or occupation, such as that embraced in cable splicing, and developing each classification in the ascending scale, a pyramid of jobs has been built up. Each shows clearly the increase in skill required for each successive step until the maximum is reached. Little attention may seem to be given to the manner of the performance, but yet, in the very beginning, the knowledge required is implicit in the things to be done; for example, "Follow accident prevention practices," "Comply with company regulations," and so on.

6. *Developing the specifications for an executive position.*—The more difficult process of developing a job specification, or record of usage, for a responsible representative of management, is illustrated by the following summary of the duties of the production executive.

The Production Executive:

(a) Directs the path and time of production and is responsible for placing, scheduling and dispatching material through production processes to the final shipment

(b) Visualizes a complete manufacturing plant in operation with a flow of orders furnished by the sales organization, grouped, subdivided, and scheduled in such a way as to avoid unnecessary delay or interruption and unusual cost or effort,

and pictures continuously the amount of work on hand at every point

(c) Collects rapidly and accurately—from the mass of production facts, records and reports—pertinent information to guide him in obtaining such results.

(d) Separates significant data, with judgment, from unimportant details

(e) Analyzes production information and arranges it in ways to reveal hidden facts.

(f) Creates new and ingenious ways of making essential factors conspicuous and meaningful to others

(g) Draws from current happenings throughout the plant, from neighboring and competing plants, and from industry in general, ideas useful for his purpose

(h) Discovers paths of production for a varied product and all its detailed parts, that shall be of least resistance, of minimum cost, and of satisfactory speed and simplicity

(i) Receives orders and assembles them, routes them individually, divided, or in groups, along wisely selected production channels, with judgment and dispatch

(j) Keeps in touch with the sales department so as to be prepared for probable future demands and keeps that department informed regarding any changed capacity of the plant

(k) Supplies prompt information, with appropriate explanation, regarding changed dates of delivery

(l) Gives proper sequences and priority to orders and makes due allowances for emergencies and interference

(m) Allows reasonable time for receipt of material, and orders, in the proper way, from the proper place, at the proper time, and in proper quan-

tities, parts or materials from departments or places outside his control

(n) Makes detailed schedules for all orders and checks their progress through all manufacturing processes, inspection, assembly and test, to shipment as finished products

(o) Keeps work-in-process at a minimum, and turnover at a maximum speed, and avoids over-run or shortage

(p) Holds the reins of control over rate of progress at every point of manufacture, and plans for maximum utilization of plant, and for the best service to customers at least cost to the firm.

(q) Avoids impossible dates and unreasonable demands for service

(r) Provides for contingencies, and in emergency does promptly the "next best thing"

(s) Advises foreman, and others in responsible charge of work, in case of failure to secure material on time, or other unforeseen contingency

(t) Suggests substitutes, obtaining proper authorization when necessary

(u) Places all needed information upon orders, and keeps all records completely and accurately and up-to-date, and develops activity records and load diagrams

(v) Prepares such other charts, tables and diagrams as will help him and others to see the best production procedure in his and other related departments of the plant

(w) Uses such materials and such methods tactfully and with foresight, to lower costs and increase profits, especially through avoidance of waste time of employees and idleness of machines

(x) Surveys and studies plant facilities and equipment at frequent intervals and makes recommendations for change and improvement, or relocation and rearrangement, of production units, when-

ever such change will increase the efficiency of the production functions for which he is responsible

(y) Formulates methods of coöperation among busy associates throughout the production division, whose minds are often focused in quite different directions, so that the search for improved procedure will be stimulated, and the incentive for good production results will be created

(z) Develops contacts with related departments, and gives them back dependable information and prompt and proper advice regarding essential items of production

(a1) Devises ways for tying up responsibility with records that he assembles.

(a2) Improves the morale of his employees by checks that fairly appraise the value of work and success of performance, creates confidence and goodwill, and attends conferences and serves on committees furnishing constructive suggestions

(a3) Administers, quickly and easily, a multitude of minor detailed matters relating to all the steps of an intricate production system in a complex and growing business that is meeting the constantly varying demands of many customers, and facilitates the working of the whole by selecting promising assistants for his department, training them, and guiding them in efficient production procedure

(a4) Delegates responsibilities to subordinates, with commensurate authority, in a manner to produce loyalty and incentives for excellence.

(a5) Assigns tasks and duties with understanding, and with reference to the personality, character, skill, and efficiency of his aids

(a6) Inspires confidence by the promptness, precision, resourcefulness and scientific quality of his own performance

7. *Demands placed upon the executive.*—From these specifications for an executive, it is easy to visualize the demands placed upon his intelligence and the test of his capacity. It is clearly shown that he must have vision, analytical ability of the highest order, sound judgment based on fundamental knowledge, power to control men, and, in addition, two last attributes of the highest importance to an executive —ability to plan and to execute. This is a fair illustration of a specification that not only tells what must be done, but also the manner of doing it. When a complete series of job specifications, covering all groups and classifications from the simplest to those picturing the highest degree of responsibility, has been drawn up, there has been built up an assembly of information that becomes a most important tool of management. Let us see how this tool is used.

8. *Scientific selection of personnel.*—Selection of employees is the first and most important step in the building of a business organization. Scientific selection will discover the worker best fitted for a given form of work. Job specifications are the foundation of the employment procedure, providing, as they do, a substantial basis for determining the prerequisites of each work assignment. When applicants are selected in this manner for specific assignments, their placement has been automatically determined. Placement is, therefore, directly controlled by job specifications.

9. *Classification of duties and responsibilities.*—In

the present situation of constant and continual growth in the size of business organizations, which increases the demands on the personnel, it becomes necessary to subdivide the work continually, and to reassign employees, to cope more effectively with the load. Thus a large number and variety of separate forms of work result, and, if the business with its branches is spread over a wide geographical area, the complexity becomes magnified. In such situations, the need for some form of scientific classification is apparent.

Because of the close relationship between the worker and his work, it is safe to conclude that any classification of one will serve readily for the other. As the form and volume of work are controlling factors in the layout of occupations and the assignment of personnel, there, too, the job itself stands out as the logical basis for a common classification. No better means exist for the establishment of a serviceable classification and definition in correct terminology, than job specifications, whereby parcels of work can be segregated, studied, and fixed as to scope and limitations.

10. *Basis of the training program.*—Common acceptance has long been given to the fundamental necessity of job specifications and analyses for all employee-development in industry. Training material should be carefully prepared with the objectives of the employees' work always in mind. General knowledge of the workers' duties, secured through

experience or casual observation, is not enough on which to build a substantial training program. Recourse to detailed information intimately related to each employee's work must be had. Job specifications contain just such data, and are, therefore, an ideal basis for the development of training programs. The use of job specifications in the design of these schedules gives assurance that those responsible for training in different centers shall be informed of the same training essentials, thereby contributing to uniform results. Furthermore, job specifications are of the greatest value to the supervisor or the foreman in the training of the new employee on the job, for the foundation of his training is to be found in these specifications.

11. *Other services of job specifications to the management.*—Brief mention may be made of other ways in which job specifications may be used as tools of management. In promotion they are great aids in the objective measurement of a man's ability, in that they break down the job into its elements and enable management to appraise more definitely the degree of efficiency in actual performance. If promotion tests are used, they must necessarily be based on an analysis of the elements of the position vacant. The preparation of job specifications is likely to disclose defects in organization, pointing out any overlapping or duplication of effort. In the constant changes of organization involving reassignment in supervisory and executive positions, job specifications provide a

ready means whereby the new leader may quickly familiarize himself with the duties of his subordinates. The mere mention of compensation brings to mind how materially job specifications, clearly defining the characteristics of the work and the worker, may aid in fixing basic rates of pay in just relationship to responsibilities and productive effort.

12. *Benefit of job specifications to the worker.*—Specifications have been referred to as tools of management, but they are of equal benefit to employees as individuals. A clearer picture of his prospective duties is furnished through this means to the applicant for a position, and he is thus enabled to determine whether the position available is of interest to him and suitable to his individual aptitudes. With the clear definition of his duties, he knows where he fits into the organization. With specifications of higher classifications available to him, he can learn the steps of the ladder up which he may climb toward further advancement.

Job specifications in the hands of employees provide them with a collection of pertinent facts helpful in their desire to make the grade. They have clear knowledge of the specific objectives to be achieved through training. If an employee should have the misfortune to be misplaced in his vocation, he has this means of informing himself of work for which he is better adapted, and in which he will feel better able to make progress.

13. *Method of developing specifications.*—There

is no denying the fact that the preparation of a complete series of job specifications, covering the division of labor in a whole business or industry, is a task of considerable magnitude. With every member of the organization willing to submit the record of his own performance for critical analysis by his superiors, and with staff men to synthesize these analyses into the fundamentals that form the specification, the division of labor makes them feasible of completion without too great effort or expenditure of time on the part of any one individual. With all the jobs thus clearly defined, the next question that presents itself is: From what sources can human material be drawn to fill these positions?

## REVIEW

Explain the new conception of labor's place in business.

Discuss the importance of defining the responsibilities of a job.

Define the term "job specification."

Write out brief, summarized specifications for your own position, stating the objectives of your work and the list of duties assigned to you.

Show the usefulness of job specifications, as a tool of management, in: (a) selection of personnel; (b) classification of duties and responsibilities; and (c) establishing training programs.

Point out the benefits of job specifications to the worker.

Indicate a method of preparing job specifications.

# CHAPTER III

## NEEDS AND SOURCES

1. *The continual change in personnel.*—We have built up a picture of the human organization required to accomplish the full objectives of an industry, with the division of labor required and the work of each individual clearly defined. We know that this organization functions only for a brief time in the complete integrity of its personnel. As already stated, the work of an organization is a dynamic flow of human endeavor, and there is constant change.

This flow is upward and outward. Losses to the organization are occurring constantly through death, retirement, disability, resignation, discharge, and dismissal. Hence, there develops a continual demand for the employment of new personnel. These losses, together with the demand caused by the growth of the business, sum up the total need.

2. *The general forces and the management group.*—In general, the needs of an organization are divided into two broad classes—those for the general forces, and those for the management group. In filling the needs in all levels above the lowest, the primary source is always the existing personnel. Considering the small, but all-important, management group, those

responsible for the upbuilding of the organization must insure an adequate supply of leadership. To determine its own requirements, each company should outline the development of its organization for some years into the future, and estimate the number of supervisory and executive positions that must be filled five or ten years hence. On a sound estimate of growth, provision must be made for the increase in the number of these positions, and for the losses occurring in them. It is evident that the requirements thus found can be filled only by the promotion of men from the lower ranks. Even if it were not the wise policy to fill positions of responsibility by promotion during the five- or ten-year period, only those already in the organization have the necessary knowledge and experience.

3. *Survey of the existing personnel.*—The personnel problem involved in making promotions is to determine how many men of potential leadership must be brought into the company at a given time to insure an adequate supply of this experienced "human material." These men must fill responsible positions at some future time, say ten years hence. Before any attempt can be made to formulate a program of employment, a comprehensive survey of all the potential personnel available for such positions, and already in the company, is of major importance. This survey should cover every man in the organization up to a definitely selected level of positions which, in responsiblity and authority, would satisfy a man with real

capacity for leadership as a permanent ultimate objective. It should certainly extend down to include first-line foremen.

At the conclusion of this survey, it should be possible to answer, for every man covered, the following questions:

(a) With normal development, will he be ready for a position on the objective level five years hence? If not, will he be ready ten years hence?

(b) If given certain special training or supervision, can he be made available for such a position five years hence? If not, will he be ready ten years hence?

4. *Studying the qualifications of individuals.*—In considering the performance and promise of the men, the judgment of their immediate supervisors should be reviewed by their superiors, by general employment supervisors, and finally by department heads. The factors covered would include a review of the man's performance on his present job; how soon he will be ready for promotion; any special personal handicap, or lack of training, that now prevents promotion but that might be overcome; and his promise of future development.

In answering the two key questions listed, the qualifications of each man should be carefully weighed against the responsibilities of the objective position. In applying this test, a definite analysis of these responsibilities, as indicated in Chapter II,

would be very helpful permitting a consistent standard of judgment to be applied. With the results of such a review at hand, each department, and the company as a whole, would have undoubtedly the best estimate of its supply of potential personnel that it is possible to obtain.

5. *Planning for a five-year or ten-year period.*— This plan will set up the total supply of potential leadership within the organization, and to these men will be given promotions as higher vacancies occur. For the purpose of determining the numbers of men of potential leadership who must be brought into the organization, this estimate of supply should be compared with the estimated demand over a five-year and a ten-year period. Proper allowance, of course, must be made for losses before the men in question reach the objective positions. In the case of men who will require special development or training, allowances must be made for the failure of some of them to develop.

With this knowledge of demand and available supply, the organization can then more confidently determine how large must be its program of employment of supplementary personnel to make up any deficit or meet its normal annual requirements. For setting a current quota for the employment of potential leadership, the analysis of requirements and inventory of available personnel would give several items of information most pertinent to the current solution of the problem at hand:

(a) The educational background of the men now in the organization who will be available for these positions during the next ten years
(b) Some information as to how rapidly this future material is developing. This information would enable the organization to judge how far ahead of actual need this leadership personnel must normally be employed, that the men may gain the necessary training and experience
(c) The surplus or deficit of available men, compared with the requirements five and ten years hence
(d) The normal future annual requirements for which provision must now be made

6. *The four principal steps in employment study.*—All of these factors are exceedingly valuable guides to sound judgments in arriving at a correct employment figure. To sum up the above discussion, a sound procedure for the determination of annual employment requirements for potential leadership would involve a compilation and analysis comprising four principal steps.

(a) An estimate of the requirements of men for the objective positions five years and ten years hence
(b) An inventory of the personnel now in the organization, to be available to meet these requirements
(c) After allowances for losses and failures to develop, a balancing of this demand and supply
(d) A calculation of the current annual quota on the basis of fundamental information bearing on it, obtained in the first three steps

7. *Maintaining the supply of potential leadership.*—Reverting to the statement, previously made, of

the importance of maintaining a well-balanced organization, it is clear that some scientific basis of calculation of needs, such as that illustrated above, is needed to insure that there shall always be an adequate supply of leadership personnel progressing up through the organization, but never an oversupply. This discussion of the problem of determining the needs of men for the supervisory and executive personnel has been presented in the detail that its importance demands, and for the reason that leadership talent is rare.

8. *Requirements for general forces.*—The problem of filling the requirements within the general forces is no less important, even if it can be dealt with more simply. There is always a continuing factor of turnover, due to separations, voluntary or involuntary. In passing, it may not be amiss to emphasize the influence that wise personnel policies have on the reduction of labor turnover. Here, however, we are considering vacancies, due to whatever cause, requiring the setting up of an employment program that will adequately replace losses and provide for the growth of the industry.

Good employment procedures to meet this demand will include a study of past employment experience within the organization, present personnel, present and future needs, and general employment or unemployment conditions. Thus, an effective plan may be developed to insure the maintenance of a normal force at all times. It is manifest, of course, that the

refinements of calculation necessary to insure future leadership are not required in filling the needs of the general forces. These constitute a continuing, pressing, ever-present demand.

9. *Main sources of labor supply are local.*—In considering the sources from which the needs of a business or industry must be met, we find that ordinarily these sources lie in the community in which the industry is located. This condition is almost wholly true in the field of employment for small industries. Although the constantly increasing size of corporate organizations, sometimes national in extent, enables their managements to seek employees over very wide areas, the employees in each unit are drawn mainly from the industrial center in which the particular unit is located. For this reason it is important to consider the personnel sources of our country as a whole.

10. *Importance of educational background.*—In the study of the specifications of jobs in which needs exist, and without considering specific skills, the fundamental requirements are good personal qualities and educational background. For each job there is always a minimum educational requirement upon which skill must be built.

In Figure 2, the school population in the United States is shown. The chart depicts in round numbers the distribution, with regard to schooling, of the forty-eight million young Americans whose ages range from five to twenty-five years. The curve divides the twenty-five million in school from the

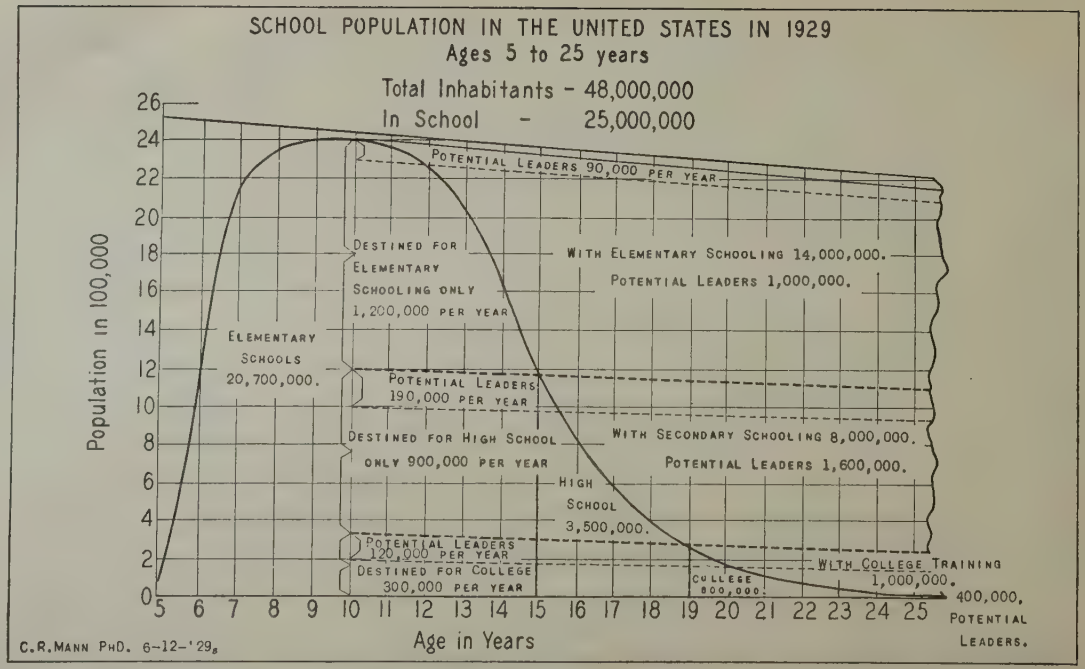
SCHOOL POPULATION IN THE UNITED STATES IN 1929
Ages 5 to 25 years
Total Inhabitants - 48,000,000
In School - 25,000,000
Population in 100,000
Age in Years
POTENTIAL LEADERS 90,000 PER YEAR
DESTINED FOR ELEMENTARY SCHOOLING ONLY 1,200,000 PER YEAR
WITH ELEMENTARY SCHOOLING 14,000,000.
POTENTIAL LEADERS 1,000,000.
ELEMENTARY SCHOOLS 20,700,000.
POTENTIAL LEADERS 190,000 PER YEAR
DESTINED FOR HIGH SCHOOL ONLY 900,000 PER YEAR
WITH SECONDARY SCHOOLING 8,000,000.
POTENTIAL LEADERS 1,600,000.
HIGH SCHOOL 3,500,000.
POTENTIAL LEADERS 120,000 PER YEAR
DESTINED FOR COLLEGE 300,000 PER YEAR
WITH COLLEGE TRAINING 1,000,000.
COLLEGE 800,000.
400,000. POTENTIAL LEADERS.
C.R.MANN PHD. 6-12-'29.

FIGURE 2—DISTRIBUTION OF SCHOOL POPULATION IN THE UNITED STATES, ANALYZED FOR ITS RELATIONSHIP TO BUSINESS.

twenty-three million who left school and are trying to find their appropriate occupations in life. The children begin leaving school at the age of twelve, and one-half of them are out by the age of fifteen, their median age of entering high school. One-eighth of them enter college at the median age of nineteen. Taking the whole group in round numbers, fourteen million have elementary schooling, and only eight million have secondary schooling, from which number three million five hundred thousand are graduates. Less than a million of these enter college (including normal schools). These numbers indicate the operation of the educational system as a sieve, dropping out, from year to year, large numbers of the least fit, until in college is found the highest ratio of potential leaders.

11. *Potential leadership is paralleled by education.* —Unfortunately, as the chart indicates, for a variety of reasons other than the lack of ability, many with potentiality for leadership drop out with only elementary school education, and another large proportion without completing high school. It is striking, this similarity between the quantitative aspect of general education and the pyramidal form of business organization. In education, we find the broad base filled with those who have had but elementary school training, and at the apex, the relatively small number of individuals who are graduated from college. One difference, however, cannot be too clearly emphasized: In each of the groups that have not had advantage of

a complete education, there are numbers who have real leadership abilities.

12. *Discovering, developing and supplementing leadership talent.*—As indicated in the discussion of needs, the problem of sources divides itself into two parts: first, finding the existing talent on the payroll and developing it as speedily as is consistent with thorough training; and second, replacing and supplementing this talent in the proper selection of candidates for employment.

The first of these problems lies within the field of development, training and promotion. Coincident with the first comes the second problem, equally important, of replenishing the supply, both supervisory and general, through the various employment instrumentalities. The most important of these agencies is the regular employment organization, whose main function is to care for the general forces. Necessarily, the largest number of new people employed through these agencies are voluntary applicants and the most serious function of the agency, therefore, is that of doing a large-scale sorting.

As a general rule, throughout the country, wherever a business or industry is located, the people voluntarily applying for employment are a cross-section of the community. In highly industrialized communities, in employing for the general forces, the employing agency may be able to select individuals with the specific skills required, but, in large measure, employment is done on the basis of potentialities for

training and development, and educational background here plays an important part.

13. *Building-up a well-balanced organization.*—Much has been said, before, of the importance of building up a well-balanced organization. From a study of the job specifications, minimum educational requirements can be determined. For some crafts, elementary school education will be found sufficient, while in others, requiring higher abilities and knowledge, a high school background or its equivalent will be demanded. In other words, the logical place to find young people to fill requirements for the varying degrees of abilities is in the output of the educational system of the country.

14. *Stimulating sources of leadership supply.*—Usually, the large group with elementary schooling will form the major part of voluntary applicants, but experience in industry has shown that frequently able men for the more highly skilled trades, and for the foremanship positions, do not apply voluntarily in sufficient numbers, and it is necessary to develop the sources by actual contact with the high schools, technical schools, and technological institutions below college grade. There are advantages in an aggressive campaign of this kind to develop sources of high-grade personnel. All of these sources should be developed when the voluntary source fails.

Men will and should be employed for the lower levels in the general forces, who have abilities and capacities to break through into the supervisory

levels. Men having these abilities, however, should, as far as possible, be selected with their advancement in view. The preliminary work of their earlier years would then be a part of the development process. The numbers of men employed, with these potentialities, should bear a direct relationship to the needs of the company. With the maximum development of the leadership talent in the general forces, it has been found necessary to develop a special employment procedure for the conscious selection of men destined for positions of responsibility in supervisory and executive work.

15. *College and university graduates as potential leaders.*—Considering the educational equipment of the potential personnel for these positions, to supplement those being developed from the existing forces, the best source is undoubtedly the graduates of the colleges and universities of the country. In accordance with the requirements of the particular business, this source should be developed in the major departments of universities, colleges of liberal arts, engineering colleges, and collegiate schools of business. It is particularly important, in developing this source, to employ only the number of selected men actually needed to supplement those who are being developed from the ranks of the existing organization.

16. *Available sources of personnel.*—As before stated, the source of labor supply comes usually from the community in which the industry is located, and selections are made mostly from those who make

voluntary application. But unless the prestige of the business gives it a high reputation as a good place to work, or there are unusual conditions of unemployment, measures for stimulating voluntary application must be undertaken. One of the best measures is to encourage present employees to bring in their friends. This plan will usually develop an excellent source, particularly if present employees are efficient and of high quality. It will probably follow that their friends will be their social equals and likely to possess similar qualities.

Another small, but important, reserve source is to be found in former employees. Numbers of employees separate themselves from an organization because of temporary conditions. When these conditions disappear, they probably will be glad to return. Many wise employment officials keep track of former employees and invite the good ones to come back when need arises. One element possessed by this source, but lacking in all others, is the definite knowledge of qualifications based on past performance.

17. *Other sources of supply.*—It might sometimes be well to interest the stockholders in sending good candidates to be employed in the business in which they are part owners. Then, there are local employment agencies that may be called upon, but little dependence can be placed on them in selecting candidates qualified for specific vacancies, and they would probably serve best as a source of unskilled labor. As

a last resort, advertising may be used to develop sources. The quality of applicants responding to advertisements is likely to be low. Advertising, however, would be wholly justified in times of labor shortage.

To summarize the sources most dependable, we may list friends of employees, former employees, and contacts with schools and colleges of the community.

## REVIEW

List the causes of changes in personnel.

State the two questions a survey of personnel should answer for each individual. What levels of responsibility should such a survey cover?

Outline the four steps involved in setting up an executive personnel plan for a five- or ten-year period.

State the elements that good employment procedure should cover to maintain a high grade of workers in the general forces.

What is the main source of labor supply for an organization?

Point out briefly the significance to business of the figures regarding school population in the United States.

Discuss the two factors connected with the problem of personnel sources.

Explain the use of colleges as sources of leadership material.

List other sources of personnel supply.

# CHAPTER IV

## SELECTION AND PLACEMENT

1. *Selection of new employees.*—With jobs analyzed, needs determined, and sources developed, the next step in assuring a well-balanced, efficient personnel is the careful selection of new employees. It is the foundation upon which future development is built.

Good selection still depends, in large measure, on the sound judgment of experienced interviewers. The interviewer should be possessed of the qualities of sympathy and human understanding. He should not only familiarize himself, through detailed study, with the specifications of the jobs that he must fill, but also, through keen observation of men actually at work, he must know intimately the environment of the worker, the working conditions, and the degrees of skill required. This background he uses not only to judge the fitness of the applicant, but to give the latter authoritative information and to challenge his interests and capabilities.

2. *Value of the application form.*—The judgment of the interviewer should be fortified by all possible evidence in order to aid him in determining the fitness of the candidate for the position available. The ap-

plication form is such an instrumentality. In effect, it is a questionnaire calling upon the applicant to furnish those salient facts in his life's history that bear most upon the determination of his qualifications. In each business or industry, this form should be prepared to meet the specialized conditions of each organization, but there are certain general elements that undoubtedly would be common to all of them.

It must be borne in mind that the best application form secures for the interviewer the special information that he wants, and nothing else. The application form for the accepted applicant is the beginning of his personal record with the company, and for this reason it should include all items of lasting value. It is a distinct aid to selection, and of much value as a point of discussion during the interview.

The information submitted on the application form gives to the interviewer objective evidence of the fitness of the applicant. The items enable him to develop the conversation easily and naturally, thus effecting an exchange of ideas and information.

Items that generally appear in all application blanks include a brief description of the candidate's previous environment, where he was born, where he lives, his age, marital condition, nationality, descent, father's occupation, and simple physical facts such as height, weight, and obvious physical impairments. This intimate personal data is followed, in many cases, by a complete record of educational background, usually generalized under the classifications:

grammar school, high school, business or trades school, and college or university, with indication either of graduation from such schools, or the number of years spent in each. Sometimes the names of such institutions and their locations might well be asked.

3. *Record of previous employment.*—Perhaps more important than any of these items is the record of previous employment which, with the applicant's education, sums up his experiential development. Complete information of previous employment may be required, but, ordinarily, detailed information need not be demanded for more than the last two places in which the applicant has worked, giving the names and locations of the concerns, the names of the persons under whom he worked, most important of all, the kinds of work done and the positions held, and, finally, the length of service with the organizations and the reasons for leaving. Of course, it is important to know of possible previous employment with the company to which the applicant is now applying for work.

References are generally considered of value, and a request for them should appear on the application form. As the names of previous employers have already been stated and, naturally, used as references, the names of others than former employers should be given as additional references.

These items are the general points of information covered. Each company adds others where special conditions demand them.

4. *Securing information from references listed.*—It is almost a universal custom for employers to communicate with the persons given as references by the applicant, and to consider the information received in determining the fitness of the candidate for employment. Some employers place high dependence on reference statements, but common sense dictates that they must be on their guard against full acceptance of these statements. Consideration should be given to the motives behind the statements. Friends of the applicant would be very loath to prejudice him in the eyes of a prospective employer. The dependability of information received can well be increased by careful preparation of the letter of request, perhaps in the direction of asking for some kind of rating on specific items of character or skill that have a direct bearing on the possible employment of the applicant for the specific job in view.

5. *The interview.*—The interview probably always will remain the most important element in employment procedure, but we must admit that, after all, it is a crude means of evaluating men. An interviewer must always resist dependence on his first impression, as decision based on it can be nothing more than a "hunch." It is startling, when we consider that the course of human lives is in the balance, that many interviewers have such profound confidence in their ability to size up a man and determine his fitness and ability without the need of any supporting evidence. Fortunately, much of the first-impression judgment

is disappearing before the advance of more scientific methods. The interviewer is aided by the information secured by the application form, and much of the interview can be spent in elaborating on the objective information contained in this form and in confirming statements made. References when received will also be a fairly reliable check on judgments previously made.

6. *Checking by means of a rating scale.*—To resist the influence of general first impressions, an interviewer may aid his better judgment by the use of some kind of rating scale that will break down the elements of personal qualities and abilities of performance into pertinent questions applicable to the job for which the candidate is applying. As an illustration, the interviewer might consider physical qualities, intelligence, and a few personal qualities such as initiative, judgment, reliability, and a rating of the applicant's probable value to the company, based on previous education, training, and experience.

At best, it must be admitted that these tools of selection—the application form, the interview, and the references—are crude measures for judging the aptitudes, capacities, abilities, and fitness of men for jobs in business and industry. Constant effort is being made by enlightened employment managers and psychologists, to develop a measuring rod for more direct determination. This movement was much stimulated during the war in developing selec-

tive methods in the upbuilding of an efficient army, and also in industry to raise the efficiency of labor to meet the impelling demand for increased production. There have slowly developed, since that period, methods and procedures for the selection of men on a more scientific basis. Research in this field has developed many varieties of tests for measurements in the field of human behavior.

7. *Use of selective tests.*—For service in the selection process, the tests that have been developed, with continuing effort toward their improvement and increased validity, may be grouped under three general headings: general intelligence, special ability or trade tests, and aptitude tests. These might include a physical test, but such a test is made as a regular part of the general physical examination that is now usually given in connection with the employment procedure.

Careful study of the job specifications in each classification of occupation will indicate roughly the degree of the intelligence required to function efficiently on the job. It would be helpful to employers of men to have some means of measuring the degree of intelligence possessed by an applicant. Psychologists have given us a general intelligence, or mental-alertness test that throws some light upon the individual's mental capacity. There is some doubt as to just what elements these tests do measure, but from correlations secured through the applications of the tests, they seem to offer prognostic value on the

subject of a man's ability to learn, and some measure of his speed in learning.

8. *Insufficiencies of tests.*—Many elements in our human complex cannot be measured by these tests, notably those actions in human behavior due to the emotions. The tests, for example, do not measure courage, reliability, loyalty, or many other human traits that contribute to human efficiency. If we bear in mind these limitations, mental-alertness tests serve a real purpose and make their contribution to greater definiteness in this most difficult problem of selection. However, these tests should not be called upon to make fine differentiations between groups of applicants, but they will clearly indicate high intelligence or low mental capacity. In other words, they can generally be relied upon to indicate high, average, or low ratings in mental alertness.

9. *Tests for skill and special ability.*—Trade tests are tests of skill, and serve to reveal the degree of skill of a claimant to proficiency in a given craft or trade. Obviously, this kind of test is applicable almost exclusively to trades that, through long usage or tradition, have become standardized. If a man claims to be a bricklayer, his degree of skill would be determined by a test in bricklaying. If he had no skill, but wanted to become a bricklayer, a trade test would not be applicable, because he would know little, if anything, about such work.

Trade tests may be oral, written, or performance. A test of performance would seem to give conclusive

evidence of the degree of skill the craftsman possesses, and yet Dr. W. V. Bingham, Director of the Personnel Research Federation, states that in determining the degree of skill under a classification of novice, apprentice, journeyman, or expert, a performance test does not make this differentiation; that an oral test is necessary to determine the knowledge one has in planning the work, or in proper use of the right tools, which means that in the higher grades in the skilled crafts, higher intelligence is needed. Under conditions that will later be discussed, the desirability of giving a man this special ability test before he is hired is obvious, so that his proper placement may be accurately determined.

10. *Aptitude tests.*—Many men and women hired do not possess specific skills. This is particularly true of young people out of school, who are just at the beginning of their economic life. They must be trained and developed, after employment, for the particular work objective to which they are assigned. Here is a much more difficult problem of selection and placement. Through information received from the application, the interview, and the test of mental alertness, a general guide is at hand, but an effort should be made, scientifically if possible, to determine the natural bent of the individual.

Psychologists have also given us aid in this direction, through a third group of tests generally known as "special aptitude tests." The character of these tests varies widely. At one extreme they approach

in character the trade or performance test. As an illustration of this fact, there is the test of the telephone operator, in which she is required to begin the operation of a special equipment, nearly identical with that of a central office switchboard. She is given elementary instruction in the methods to follow, and her dexterity and degree of intelligence in handling simulated calls are observed. An experienced supervisor can quickly determine whether the applicant will be a success or a failure.

11. *Dexterity tests.*—Most aptitude tests are developed on a simpler plan, involving less elaborate equipment, to discover the special aptitudes which the job demands. Johnson O'Connor, of the General Electric Company, describes a test which he evolved for women applying for employment in certain types of machine and operating assembly. This test is for finger dexterity. The test apparatus consists of three hundred brass pins and a flat plate in which one hundred holes are drilled part way through. A candidate, using the right hand only, takes the pins from a tray in which they are piled loosely and places three in each drilled hole as rapidly as possible. Individuals differ widely in their speed, the fastest finishing in less than six minutes and the slowest requiring from twelve to fifteen minutes. According to the writer's direct observation this dexterity test has achieved excellent results, both in securing employees who have the special aptitudes required, and in reducing turnover, because of the employees' ability to

achieve efficiency in their special work assignment.

The scientific method, under conditions that will later be discussed, should give good returns, but it should be applied conservatively, with early and continuous checking of results. All of these tests should be applied by those who have made themselves expert in the field, and, seemingly, during the present evolution of measurements in human behavior, they should be introduced into industry by individuals trained in their use, and developed for each industry in the spirit of research.

12. *Relative value of scientific selection.*—Is this modern scientific elaboration of the selection procedure in employment justified, or in any way an improvement over the "good old days" when all the boss had to do was to "hire and fire"? Probably within these three little words, "hire and fire," we find the weakness of old methods. Because of the hit or miss attempts to hire, and the reliance on "hunch," there resulted the very burden of firing the unfit, which had serious results in the discontent of the employees and increased cost of employment to the management. There has consequently developed increased care and expertness in employment procedures, expanding in many industries into a really scientific attack on the problem.

The development of these methods toward the application of elaborate tests and examinations must be fully justified as the methods are adopted. In the first place, the employment office must have enough

business to warrant an elaboration of its methods. A business organization with a small number of employees, with few vacancies to fill, will find it difficult to justify an elaborate procedure. It would be unwise even for the largest companies to develop test procedures to meet demands for all classes of employment. If large numbers of workers of a given classification must be employed, then the development of an adequate number of tests would probably be fully justified. Where demands for a given job are low, the cost of development of such tests would not be warranted.

Conditions within the organization, particularly with regard to the efficiency of the personnel, should influence any attempt to improve the method of selection of new employees. If the quality of the employees engaged seems to be low and the degree of efficiency demanded is not being developed, the management might well look into the manner in which the selection of new employees is being made.

13. *Tests must be valid.*—Above all, tests must be valid, and in this requirement lies the most difficult part of the determination to use them. The bibliography on the subject is growing to large proportions, but no employer would be justified in accepting a ready-made test for application within his organization. It is true that many good tests may be accepted for adaptation within a given industry, but the point that it is here desired to make is that the setting up of a test procedure is a research problem

for each industry having it under consideration. Tests must be applied experimentally and their validity determined before they are made an element of general application in the employment procedure. It requires courage on the part of management to enter whole-heartedly into this new development.

But, with the fairly well-assured prospect of building up a more efficient and productive personnel through the savings that will come from reduced turnover, and the happy state of morale to which this care in selection should contribute, by putting the right man in the right place, the development will fully justify itself for organizations having large demands for new personnel.

14. *Proper selection implies correct placement.*— The subject of this chapter is selection and placement, but it is clear from the previous discussion that if an individual is properly selected for a specific job, he is automatically placed. Wise selection, therefore, minimizes almost to zero the problem of placement. Of course, there is the special problem of finding out just where, within the class of jobs specified, the individual should receive his definite assignment. This question will be governed by the immediate needs of the divisions and sections within the organization, and will be so arranged in the employment office that no delay will occur in early definite assignment. Refinement in placement by an expert employment manager might take into consideration ease of personal adjustment, by placing new em-

ployees having unusual temperaments with understanding foremen and supervisors.

The problem of selection and placement is one of constantly building and maintaining intact the fundamental structure of the organization by placing men and women so that they will satisfy the management with their efficient production, and satisfy themselves in the knowledge that they are rightly placed, in accordance with their best interests, and given opportunity for self-expression. In this responsibility we are fulfilling a large social obligation, at the same time that we are directly serving the business demand for efficient services.

## REVIEW

State the qualifications that an interviewer should possess.

Test the application form used in your own or some other company for its adequacy in regard to the general points of information covered.

Discuss the use that is made of references given by the applicant.

Explain the limitations of the interview and show how they can be overcome.

Name the three types of selective tests and outline briefly the uses of each.

State the conditions that should exist before an elaborate selection system can be justified.

Explain the connection between selection and placement.

# CHAPTER V

## TRAINING AND DEVELOPMENT

1. *Need for adequate training.*—Through the careful selection of beginners in employment, and their proper placement, as indicated by their determined abilities, we have brought the worker to the threshold of his production experience. In this day of high specialization and multiplication of required skills, a new employee, even if experienced in the same field, is rarely able to function efficiently in an assignment immediately upon taking up his work. Exceptions to this general rule are found in the standardized crafts, notably in the building trades. In industry, however, in most cases even experienced workers need some introductory training, and the importance of this training is greatly emphasized because a large proportion of applicants accepted for employment are young men and women beginning their life's work. Aside from the development of skill in the beginner, as will be seen later, there is need for a continuing development program for those with experience.

Here let us repeat one of the two most important urges that impel human beings to action, the desire for progress. In establishing the soundness of a

well-conceived development program, and a realization that it is a function of management that is of outstanding importance, let us examine briefly the support given it by the best of our modern philosophers. One of them is the English philosopher, Dr. L. P. Jacks. In facing the human problem involved in our present industrial civilization, strangely enough he reverted back in his study of the purpose of life to the clear-thinking philosophers of ancient Greece.

2. *Fundamental basis of human development.*— Thus, paraphrasing Aristotle's statement in his philosophy of man, Dr. Jacks writes:

> It was something like this. Aristotle placed before his mind's eye the figure of a living man, in all the plenitude of his manhood. He saw him there, standing erect, alert and ready, with the fire of life radiating from his person, with all his powers, aptitudes, capacities and versatilities imprinted on his body and expressed on his countenance. Aristotle looked him up and down; examined the attitudes and parts of him one by one; his upright carriage, his eye gazing into the distance, his lips breaking out into speech, and above all his hands, his wonderful hands with his five mysterious fingers. Then, putting the parts together, he took in the vision as a whole, deeply meditating on the object before him; and finally, with a directness rare in philosophy, he asked himself this question. What is that fine creature for? What does the cut of him betoken? What does the make-up of him suggest? Happiness? Smooth-flowing enjoyment? Not at all! That fine creature is for *action.*
>
> With that keen eye of his, looking out in the distance for opportunities, with that alert figure ready to start forward, with those five mysterious fingers eager for occupations, and with all the rest of him, who can doubt for a moment that

the creature was meant for *action*, for undertaking difficult enterprises, for embarking on long expeditions by sea and by land, for achieving the highest excellence on a thousand roads, for enduring tremendous strains and protracted vigils, for sweeping and majestic operations, for standing hard knocks from fate and from circumstance—aye, and for giving hard knocks in return? Action the end of him! Action the meaning of him! Action is what the fine creature is for. It came in a flash, and down went the first principle of Aristotle's anthropology—*the end of man is an action.*

Compare that with the paltry speculation about happiness which arose in England about the time of that disreputable monarch, Charles II, and afterward spread like a poisonous miasma over both sides of the Atlantic—"happiness our being's end and aim." Compare it, you young men, and make your choice. Take it with you into the abodes of luxury and idleness, and tell it out to the people there who are bored to death. Arm yourself with it when the quack doctors come along with their remedies for "unhappiness." Remember it when you are unhappy yourselves, as no power on earth can prevent you sometimes, and let it silence your complaints, whether they be against the universe or against your fellow-men: The end of man is an action.

3. *Industrial training.*—The writer makes no apology for this extended quotation of a philosophy which, in this present day, we can all accept. So noteworthy in their application to the problems of industry are his comments on education, that the following quotation from Dr. Jacks is also here given.

Accepting the word "industrial" as correctly describing the essential character of our civilization, it follows, obviously and immediately, that the education appropriate to these conditions will turn on the *industry* by which that civilization lives, and in which it has its being. An educa-

tion, which teaches mankind all else it may be desirable to know, but leaves it untaught in respect to the industry which is the breath of its nostrils, is clearly inappropriate to industrial civilization. If such a civilization is to be educated at all it must be educated in and through its industry —taking this term as including the whole sum of functions involved in carrying on the work of civilization from day to day—an inclusion, it may be remarked, which covers the fine arts as well as the lowest form of unskilled labor. . . . .

These considerations lead us at once to the definition of education we are in search of: *Education is the process of training the industry of man, in its manifold varieties, and in its organized totality, to the highest pitch of excellence it is capable of attaining.* The only type of education appropriate to an industrial civilization must be conceived in these terms. It will have its roots in the actual labour of mankind and will return into that labour to endow it with higher qualities and more valuable aims. As the guiding principle of the educator, in these times, as the ultimate objective of his endeavors, nothing short of this can be offered.

Business and industry can accept these two fundamental principles in either the broad or the narrow sense. Men in industry realize that the purpose of life is action; doing, creating, executing, all those things necessary in making a product, or giving a service. They also realize that their concrete responsibility for the development of employees is education for work.

4. *The program begins with the new employee.*— In this flow of human endeavor, which in its combined effort seeks to achieve the objective of the industry, the stimulation of the current begins at the source, or the inflow of new employees. The objec-

tive of a training program is to develop the workers quickly into productive members of the organization. The training plan, of course, should be built up from job specifications. These logically indicate in general terms the objectives that must be achieved to perform efficiently in a given work assignment. To make the course of training complete, it will be necessary to break down the specification into a complete detailed job analysis. Out of this analysis training units are prepared, arranged in proper sequence beginning with the simpler operations and continuing through to those requiring the highest skill. Taken together, these units will embrace a comprehensive course. The value of building a training course on job analysis is that it insures the inclusion of all essential matter and avoids waste of time on extraneous material.

5. *Adherence to fundamental principles.*—Training in industry, or education for work, demands, perhaps more than other kinds of education, a strict adherence to the fundamental principles of learning. In applying the principle of use, or frequency, it is obvious that the worker learning a new job must perform each operation repeatedly, before it can be perfected. Concerning this factor, it is important for him during the learning process to do each operation correctly. Repetition develops muscle and nerve habits, and if the worker develops wrong habits, his whole effort is lost. The principles of disuse can be employed for the correction of wrong

work habits, by substituting right methods and ceasing to use the old.

Effort correctly directed in its relation to performance should be given careful consideration. To perform an operation correctly gives some degree of satisfaction, and to do it incorrectly brings dissatisfaction. This principle might be expressed as reward and punishment, approval or disapproval, by one's superior.

Competition is always an effective force in stimulating to greater effort and better performance. In the confusion of a new environment, it is difficult for the learner to concentrate on the crucial part of the situation. He should not diffuse his efforts, for example, in trying to comprehend the whole machine in doing lathe work, but should concentrate his whole attention on the cutting edge at the point of contact with the material—in other words, confine himself to partial activity. The principle of analogy is helpful in capitalizing on previous experience, when knowledge of one industrial operation already known may facilitate learning another.

6. *The new apprenticeship training.*—The old-time apprenticeship system, with its wasteful time-schedule in passing from one grade of skill to another, and with the learner receiving little help, is a time-consuming, costly method that is gradually being discarded. New apprenticeship training recognizes the differing abilities among new workers, and makes one of its chief objectives the development of

the individual worker to a point of productive efficiency, as rapidly as his abilities permit. This principle of recognizing differences of ability is a recent development that has made a professional impression on schools, colleges, and industries, and methods are being developed to meet this difficult problem.

Conditions within each company will dictate the manner in which the training program should be carried out. Cost, of course, is an important consideration. If the company is not large, and the number of new employees is small, training on the job will be the usual procedure. Later discussion on the training of foremen will make it clear that one of the foreman's most important functions is that of instructor to his subordinates. A definite program, however, should always be followed, and the foreman provided with training material against which each step in the progress of the worker can be checked. An employment and training supervisor should supervise training of this character, and can be of definite assistance to the foreman.

7. *Instruction on the job.*—It is easy to see that the success of training on the job depends on the foreman, who must be efficient in methods of imparting instruction, and sympathetic toward his responsibility for developing men. It must always be realized, also, that the main function and responsibility of the foreman is production. Unless he can so organize his work that his attention to the training of his new men on the job directly contributes to increased

production, he is likely to minimize his effort in this direction, or delegate the task to a fellow worker of the man to be trained. In an extreme case, he may even let the new worker pick up his skill through the trial and error method of experience, and give instruction through the dubious method of correcting the worker's mistakes.

8. *Centralized schools.*—Where volume of training has warranted it, many industries have established centralized training departments. This provision makes for efficiency because the responsibility for instruction is in the hands of teachers fully grounded in the work of the occupations taught, and also well versed in the art of teaching. Foremen are relieved from the burden of breaking in new employees, and receive them from the training department fully prepared for production work.

One of the most important advantages of intensified training in centralized schools is the shortening of the period between employment and full production work. Placing a trained man, instead of a novice, on the job insures against waste of material, breakage of tools, and accidents.

New employees are trained for skilled and semiskilled work by applying the most important principle of learning, that of frequency and use. The company school must have equipment identical or closely similar to that used on production work, and all the elements and routines that go into actual production should be reproduced in this training.

Carefully prepared text material, developed by the trained instructors, can be used to better advantage in this plan of training than in any other. This text material enables the new worker to absorb a valuable fund of knowledge, while developing skill.

9. *Upgrading employees of longer service.*—The use of the training methods here described has thus far referred to the instruction of new employees. These methods are equally effective in their application to the upgrading of employees who have been on the payroll for a longer period. They are also frequently used for the training of older workers in higher skills. In the continual progress and change in modern industry, there is an almost continuous demand for the training of workers in new skills or trades, or in different branches of present trades, when the skills formerly developed have become obsolete. Centralized training agencies have special value in providing opportunity for ambitious men of good ability to prepare for higher responsibility.

## REVIEW

Explain why adequate training is necessary in business.

State the two philosophic fundamentals of modern life, and their meaning to the executive.

Outline the basis of the training plan.

State the fundamental principles that should be adhered to in training.

What new principle is changing methods of apprenticeship training?

Discuss the foreman's connection with training.

Name the advantages of centralized training departments for new men and for older employees.

# CHAPTER VI

## FOREMANSHIP TRAINING

1. *The foreman the key man of industry.*—In the military service, leaders have made the statement so often that it has become a truism, that the corporals are the backbone of the army. All strategy, tactics, all leadership are back of the objective of getting the corporal and his squad "over the top." The corporal is the one man in intimate personal command over privates of his squad and responsible for their performance.

Can it be less true that the foreman is the backbone of industry? He is the man in the management group in actual control of the worker and, in the last analysis, responsible for actual production. All those in positions of higher leadership in management analyze, plan, and devise improvements in plant and equipment to back up the foreman and his gang in their attack on the job of efficient production. No more need be said of the importance of this first line of supervision.

2. *Wide responsibilities of foremanship.*—The increasing complexity of business and industry, the intricacy of mechanized tools and devices for the saving of labor, the high degree of specialization de-

manded by modern organization, have immeasurably increased the foreman's responsibilities for the capital investment in the plant, for low cost of production, for elimination of waste to meet competition, and for personal effort in the efficient development of the workers under his charge. A foreman is selected for his demonstrated skill and ability in some craft, and even he will admit that, within the narrow confines of his specialization, he has little opportunity to learn the broader responsibilities of foremanship.

Of course, he will gain some knowledge through his association with his former foremen, but most of his duties he will have to learn after he is on the job. It is here that training in foremanship should be made available. The foreman should be given every opportunity to grow.

3. *Training foremen.*—Realizing the importance of the job of foreman, most large industries, and many small ones, have made definite provision for the training and development of the men in such positions. This training is sometimes made a definite responsibility of a central training department, and the course is carried on by trained instructors. Sometimes the courses are developed on the initiative of the foremen, and foremen's clubs are organized and conference leaders provided from the membership. The success of this method depends upon the leadership and the degree to which the conference leader has the confidence of the group. Sometimes a number of plants combine, exchanging conference

leaders, or engaging an outside conference leader. These are illustrations of the more usual organizations, but there are many variations from these methods.

Foremanship courses may be conceived to be merely informatory, and may be carried on by means of lectures given by officials of the organization who are best informed on the various subjects. Sometimes it may be necessary to give the foremen direct instruction when some new process has been developed, or a change of method has been adopted. For the general training and development of foremen, however, it cannot be questioned that the conference method is superior to all others for the education of mature men. Foremen, when they enter upon these courses, are highly skilled men with a background of valuable experience. Each has something to contribute. The conference method is flexible enough so that the other methods can be combined with it when subjects on the program require new information or definite instruction.

4. *Operation of the conference plan.*—A conference course in foremanship should be definitely planned by the instructor or conference leader. A very satisfactory way to develop a program is to call for suggestions from the members of the group. These suggestions can then be combined into a good sequential program, eliminating duplication, and rounding out the course with fundamental material not covered by suggestions.

Another method that brings excellent results is to devote the time of the first few meetings to a complete analysis of the foreman's job. It is very unlikely that the individual foreman, prior to joining the group, has ever completely analyzed his job. It is probable that no one foreman could give a full analysis of his responsibilities and duties. In conference, however, with each one contributing the best out of his background and experience, encouraged to do so by a skillful conference leader, the result should be a full and complete analysis of the job.

From this analysis, to which each member has contributed, a constructive program for the remainder of the course can be prepared, with the assurance that it will be of vital interest to the foremen students. The advantage of both of these methods is that the members of the group contribute definitely to the program, and thus make it their own. The instructor, or conference leader, with his proper conception of the needs, will contribute fundamentals to the program to round it out into a consistent whole.

5. *Broad divisions of the course.*—By whatever means constructed, the course is likely to divide itself into several broad divisions. The first would probably have to do with the technique of the foreman's job, the operation of the tools he has to work with, the flow of production through his section, the planning and layout of the work, the proper production methods, the shop conditions affecting the work, in fact, all the technical things that a foreman must

know to be a good production man. A second division would have to do with his responsibilities to the workers under his charge—his relations with and attitude toward the workers for securing high morale, and his duties as instructor in training his workers to the highest possible degree of skill. He has entered the management group, and it is his right to know the general principles of management, and the objectives, policies, and ideals of the company. Study of these subjects would indicate the degree to which he must contribute to the problems of management. The topic of management would form a third broad division of the program.

6. *Contributions from the experiences of the group.*—The degree to which the members of the group are able to contribute constructively to their own development depends upon the specific subject that is before the meeting. If the subject is new to the men and beyond the realm of their experience, the instructor must give out the information needed. For example, if the subject under discussion should be the general principles of management, it would be usual for an executive of the company to present the material in the form of a lecture to the group. Even in this field, however, time should be provided for a full and free discussion, particularly in accentuating the application of these principles to the responsibilities of the foreman. An executive, for the time being the leader of the group, might wish also to secure information on a subject within the pur-

view of the foreman's responsibilities, to aid the management in making wise decisions on certain problems, usually those concerning operations.

The major part of a program of instruction, however, will undoubtedly be made up of subjects that will enable the members to develop ideas for the group. Out of the experience of each member will be contributed knowledge that may be new to the others. From a discussion of all of these subjects will develop broader conceptions of their problems.

7. *Discussion of operating problems.*—In the consideration of operating problems, new methods of attack may be demanded, or desired, for promoting efficiency. With all the members contributing their ideas on the subject, and with frank and full discussion, new and approved practices may be developed. Sometimes subjects under discussion arouse conflicting interests, and the immediate object of conference would be the development of all the facts, and a reconciling of the views of those in conflict.

In the several phases of attack on subjects before the meeting, except those that concern merely the giving out of information, there is an increasing contribution by members of the group, and an increasing measure of control over the conclusions and decisions reached. It is easy to understand how much more certain it is that the knowledge gained will be efficiently used in practice by the members of the group, when each is conscious that he has contributed much toward the development of this knowledge.

8. *Opportunities of the conference leader.*—The success of the conference depends upon the skill of the conference leader. As the term implies, he should have that quality of leadership that inspires the confidence of the group. He should have the abilities of a good teacher. His is the final responsibility for the development of the course of instruction. The lesson for each meeting must be carefully planned and the leader should have available all needed facts, and additional information which may be called for during the discussion.

One of his functions is to guide the discussion so that the meeting reaches the objective set for it. He will promote discussion by the use of questions that are definite enough to arouse thought and focus attention on the real issues. The leader will listen intently to the discussion as it proceeds and will summarize it from time to time, indicating what progress has been made. His greatest skill will be shown in guiding the comments so that they will bear on the subject under discussion, and not ramble off aimlessly into extraneous fields. At the end of each meeting, he should be able to express clearly the conclusions reached regarding the problems under discussion.

It is inevitable, in all foremanship courses that are based on the analysis of the foreman's job, that every foreman will be impressed with the outstanding importance of his responsibility as a developer of men. It has already been indicated in the chapter on the training of the worker that the brunt of this effort

throughout industry must fall on the foreman. Training schools are auxiliary to this effort, but do not relieve the foreman of this responsibility.

9. *The foreman must be a capable teacher.*—One of the foreman's qualifications, then, must be that of teacher. To get results that will bring out the best that is in a man, training on the job can only mean that the foreman teaches his subordinates. Because of the importance of this function, a number of industries have organized courses with the specific and definite objective of training foremen in the art and science of teaching. Granted that teaching ability is rare, it can only be helpful to foremen to be given an understanding of the fundamental principles of learning, and the accepted practices in teaching. This acquired power in teaching will bring to the foreman returns in the more rapid development of his workers, their more efficient performance, and increased production from the department.

It is necessary here to sound a note of caution. It was said in the preceding paragraphs that training schools were auxiliary aids, but did not relieve the foreman of the responsibility for the development of his men. This statement applies just as definitely to the supervisor of foremen in his responsibility for upbuilding the efficiency of his subordinates. This responsibility is being partially met, in many instances, through the supervisor acting as group leader in the training program, or as chairman of the meeting, if a trained instructor is on the job.

His greatest opportunity, however, is through the day-by-day contact on the job—consulting, advising, counciling, correcting, and encouraging the foreman in his work. In military terms, training is a function of command, and in the heirarchy of organization no supervisor or executive can be relieved, or relieve himself, of the responsibility to his subordinates for the proper performance of this important function.

## REVIEW

Explain the importance of the foreman in industry.

Discuss the foreman's wide responsibility.

List the various methods used in foreman training.

Discuss the operation of the conference plan.

Outline the broad divisions of the foremanship course.

Explain the value of discussions based on personal experience, by the foreman in a course.

Discuss the qualifications and opportunities of the conference leader.

Explain the foreman's responsibility as a teacher and show how he can respond to it.

# CHAPTER VII

## DEVELOPMENT OF LEADERSHIP

1. *Training and leadership.*—The two most important elements in plan or program having to do with the growth and progress of the individual are the training of the general forces in skill, and the development of leadership in the management group. Individuals grow through experience and self-development, but some wise philosopher has said, "Experience is a great teacher, but she charges too much for her lessons."

If we accept as the definition of an executive an individual who directs, supervises, or who is responsible for the work of one or more other individuals, it is clear that we have already begun development of leadership in the selection and training of such a man as a foreman.

In the ascending ladder of executive responsibility, each level demands higher ability and broader vision to meet heavier responsibilities. A foreman exercises his leadership over a small group engaged in a specialized form of production or service. In the next level, as general foreman or supervisor, he will have responsibility for obtaining efficient perform-

ance from a number of operating foremen who are frequently engaged in production of various types, perhaps altogether outside the experience of the general foreman during his service as a skilled worker and foreman. A further advancement brings the executive into other important fields previously unknown to him. Could anything be more reasonable, therefore, than to give to the junior executive the assistance of some form of organized training, in order that he may quickly become fully proficient in the discharge of his higher responsibilities.

2. *The personnel inventory.*—A well-considered selection process or procedure insures a supply of potential leadership capable of development. A promotion policy that calls for the advancement of those within the organization insures that men are always at hand for development. Even in the best of organizations, however, there is always the danger that men of superior ability and capacity may be overlooked. In the complexities of present industrial organization, little dependence can be placed in the old adage, "You can't keep a good man down." The best method of guarding against this danger is to make a personnel inventory of all executives and those who have potential capacity for executive rank in the organization. In making this inventory, some note of quality and ability should be recorded. The simple questions referred to in Chapter III on "Needs and Sources" might serve, or judgments on some fundamental abilities, such as:

(a) Effectiveness in getting results
(b) Ability and willingness to delegate authority and responsibility properly
(c) Ability to develop men to the limit of their capacities
(d) Capacity for growth

Such an inventory has to do with the discovery and measurement of executive talent, and should be made annually, each superior being responsible for making the record for his subordinates. These records could well be made the subject of conference between the president and the higher executives of the organization in the study of promotions and further development. The records would measure the worth, not only of present executives, but also of the existing potential leadership within the organization, all with a view to future promotion.

3. *Organized training.*—The conception of the need for executive training is so new in the field of personnel management, that, even now, some leaders in industry deny the value of organized training, and feel that an executive should be well able to develop himself. On the other hand, a recent book on labor management points out that executive training is more urgent than employee training, because executive ability is relatively and absolutely more scarce than ordinary mechanical ability. Executives progress up to their responsibilities through many and varied subordinate channels. A program of executive training is needed to round them out.

As training is a function of command, authority

and responsibility for executive training should be with the line executives. A leading industrialist has stated that the principal duty of an executive is to train. The chief executive is responsible for the training of the major executives, and, down through the several levels, each executive has the responsibility for training his immediate subordinates. Usually, the personnel department, particularly one which has a training division, functions in a staff capacity, preparing training material in coöperation with the line executives, recommending sound procedures, insuring that careful plans are developed for the conducting of courses, and even instructing the line executives in the use of material and in proper instructional methods. The training division should in all ways be helpful to the line executives, aiding them in their responsibility, which should never be taken from them, in carrying on the actual training program. In general, the conference method should be used, just as it is used in foremanship training.

4. *Subject matter of training courses.*—There will still be found in industry considerable difference of opinion concerning the subject matter of executive training courses. The subjects of the courses naturally fall under two broad classifications—one pertaining to the technique of the business, or the control of mechanical forces, and the other dealing with the important problem of human relations, the proper direction and control of the human element. Of re-

cent years, more and more emphasis is being given to the latter.

On the part of executives, a thorough understanding of company policies is essential. Each executive should be master of such policies and able to interpret them clearly to subordinates down the line. An understanding of company policies brings out clearly the manner in which the full objective of the business or industry is being achieved. In the training course, these policies should not only be made known, but the reasons for each should be carefully explained.

5. *Study of budgetary control and organization.*— The broader phases of technical processes furnish good material for training, more especially when new developments are being introduced. One subject in which it is probable that executives, particularly the newer ones, need thorough instruction, is that of budgetary control. All executives must assist in preparing budgets for future outlays. Hence, it is highly important that they understand the fundamentals bearing on their preparation. This understanding also impresses upon an executive the importance of his responsibility to remain within the figures established by the budget. Tied in closely with the subject of budgetary control is an understanding of statistics, their preparation, analysis, and interpretation. Useful statistics are among the most important tools of management.

An executive training program should necessarily include a critical study of the organization. This

study might include a discussion of the physical plant, with due attention to the question of layout, but more particularly it should be applied to human organization. Relationships of line and staff groups, breakdown into functional divisions, vertical and horizontal arrangements, coördination, in fact, a critical examination of the all-important problem of the division of labor, are major phases of the question.

6. *The subject of human relations.*—Space will not permit more than a cataloging of the many subjects that might be treated in the training program covering the broad subject of human relations. They really include most of the chapter headings of this book. Selection and placement, training, including the principles of teaching and different training methods employed, promotion problems, wages and working conditions, study of causes of dissatisfaction, discipline and morale, employee representation, and all measures tending to promote the feeling of security among the employees are only some of the most important. The executive should understand clearly the extent of his responsibility in connection with these subjects, and his relationship to others having varying measures of responsibility affecting them.

7. *Training for higher leadership.*—For potential leadership, we have a training problem distinctly different in objective. We have already seen that those who seem to be qualified for executive positions are selected from the general forces, and started on

their way upward through the foremanship level, or are designedly selected from outside sources as potential leaders. This latter group comes largely from our system in higher education. The training and direction of the men of this group must, of course, be appropriate to their respective backgrounds of schooling and experience, and their maturity.

It is highly important that the training be so planned for those men who come from outside, that they may find their places in the organization without disrupting its general morale. It goes without saying that no opportunities should be open to these men from without, that are not equally available to all other men of equivalent endowments who may be coming up through the usual channels.

Some of the important items in connection with the training of the group are:

(a) Proper orientation in the organization as a whole through an introductory training course
(b) Introductory departmental training, carefully coordinated with general training
(c) As time goes on, for those who are making good, job rotation by schedule, designed to diversify experience on production work

8. *Importance of proper orientation.*—As the starting point for the whole program for these men, their proper orientation deserves special emphasis. Not only should they acquire a broad perspective concerning the organization and policies of the com-

pany, through which they may later interpret the functions and work of their own departments, but they should also be able to visualize their own interests and abilities so that their preferences for assignment to a given department may be based on sound judgment. At the conclusion of introductory training, sympathetic consideration of these preferences should be given when the initial assignment is made.

9. *The individual's part in his personal development.*—Throughout all of this discussion of organized training for executives, there is no intent to minimize the value of day-by-day experience as a developer of men. Formal training of any kind can only supplement the values gained through experience. Nor should the assistance given in a formal training procedure relieve the individual of the responsibility for his own personal development. There are many opportunities that can be embraced on individual initiative, that contribute much to the complete development of a man, that will make him more efficient as an executive. Moreover, in this personal educational field, the subjects in mind are not those which management could properly feel justified in including in a training program.

The opportunities referred to lie in outside educational institutions, business courses, correspondence courses, and libraries. Personnel officers can be very helpful in securing information in regard to these opportunities, and, through counsel and advice, guide the employee in the selection of work that will be of

most direct benefit to him. This duty is an important personnel function.

## REVIEW

Explain the difference between the objects in training the general forces and those in training the executive group.

Develop a list of factors that would serve as a basis in making a personnel inventory of the executive material in your own department.

Explain the functions of the higher executives and of the personnel department in executive training.

Name the three important subjects in which executives should be given training, and outline the factors to be covered in each subject.

List three of the important items in the training of executives brought in from outside the concern.

Discuss the importance of orientation courses for executives brought in from outside.

What responsibility has the individual for his own personal development and what effective media are available for the purpose?

# CHAPTER VIII

## EMPLOYEE REPRESENTATION

1. *Bringing management and men together.*—In the preceding chapters, the objective has been to indicate those measures in a wise personnel policy that would give to each member of an industrial organization an opportunity to grow and to develop to the best of his ability and capacity.

We come now to the consideration of those elements that serve to promote the feeling of security among the employees—the satisfaction of the second fundamental desire of human nature. The transition from growth to security is made easy by giving consideration, first, to the subject of employee representation. This method of bringing management and men together has a high educational value. It continues to contribute to the growth of the individual and to promote security through the common understanding between management and the general forces.

2. *Employee representation in Great Britain.*—The employee representation movement is of recent origin. Relatively few business concerns were experimenting with it prior to the World War. In Great Britain, the establishment of works councils during the war, on the basis of the Whitely reports,

gave great stimulus to the movement. The organization was to be national for each class of industry, and divisions were to be made territorially into district, local, and works committees. By 1919, many industries developed national Whitely Councils, with a total of more than 3,000,000 employees affected. Government control was instrumental in organizing this representation movement, in that the Ministry of Labor established the National Industrial Councils.

Throughout the Continent a number of countries, particularly Germany, made works councils compulsory through law for industrial establishments employing twenty or more persons. The effort was made in the United States during the war, through governmental influence, to establish some form of employee representation, and several of these attempts were carried through successfully—notably in the lumber industry in the northwest.

3. *Employee representation in the United States.* —In the United States, the development of employee representation since the war has been entirely on a voluntary basis, the employers or management, for the most part, taking the initiative in its organization. Joint district and national industrial councils have not found a place in the conception of employee representation in the United States. Each industrial organization has developed its own plan independently.

Since the war, the employee representation move-

ment has grown slowly but steadily. In 1928, 432 corporations had employee representation plans in operation, involving a total of 1,369,078 employees. This number covers many of the larger corporations in the basic industries, although a substantial number of small companies, with 1,000 employees or less, are carrying on the plan successfully.

A thoughtful consideration of the changing methods of management shows the trend away from autocratic control, and in the direction of reaching executive decisions through consultation and conference. This condition is almost wholly true, in enlightened industries, among the supervisory and executive groups. It modifies and tends to eliminate the age-old conception of control through conflict. The facing of a problem in conference by those concerned, with all facts assembled, brings joint conclusion and concerted action on the part of the supervisors on the joint decision reached. In this method we see the complete avoidance of conflict, which could easily result from a one-man decision, backed only by his individual authority. What more logical development in industry could there be than to extend this new method of control by consultation and conference down into the ranks of the general forces, permitting full and free discussion of all problems of vital interest and direct concern to the workers?

4. *Purpose of employee representation.*—The purpose of employee representation, then, is to assure

regular and frequent contacts and conferences between management and selected employees representing the general forces, to:

(a) Develop the facts and conditions of employment from the points of view of both the employees and the management, and, by discussion, undertake to arrive at a common viewpoint and understanding of these facts, thereby establishing conditions that are mutually satisfactory

(b) Provide an additional opportunity for regular discussion of matters pertaining to the business and its operations; determine the interests and desires of the employees in plans or projects designed to promote their personal well-being, to the end that the best interests of the employees, the owners, and the public shall be considered and conserved

5. *Joint conference committee.*—The foundation of success of any employee representation plan lies in the joint conference committee made up of representatives from the general forces and from the management. This instrumentality provides a double-track channel of communication along which representatives of the workers can make known the desires and opinions of their constituents, and representatives of management can bring before the workers' representatives problems of mutual concern to management and men. It provides a procedure for prompt adjustment of individual and group misunderstandings, complaints, and grievances. In the early stages, after the inauguration of these committees, it was found that much attention was given to

subjects concerning wages, hours, and working conditions, and the committees proved a most efficient agency for expediting settlement. With the gradual adjustment of these pressing problems, greater interest became manifest in the functions of management and policies, not only on matters directly affecting the employee, but also on the larger policies controlling organization, finance, production, distribution, and public relations. The discussion of these broader problems has been of interest and high educational value not only to the workers, but the point of view of the worker has been most helpful to management representatives in giving them a broader comprehension of their responsibilities, particularly those affecting personnel relations.

It is very satisfying, in examining the records of well-conducted plans, to note the early disappearance of grievances and suspicions and the change of attitude on the part of workers represented, toward constructive aid in problems promoting greater efficiency and productiveness. Discussions in joint conference committees have tended to raise in each group a feeling of mutual respect.

6. *Purpose of joint conference committee.*—This discussion indicates broadly that the purpose of joint conference is an exchange of opinions and points of view. It is quite clear that a wisely constructed plan of employee representation will have no element of management-sharing in it. Management might be called the craft of leadership, and is exercised in the

same manner and with the same exclusive prerogatives as that of the worker skilled in his craft. It is hard to believe that any intelligent worker would want to participate actively in management, but he does want an opportunity to be heard, an opportunity to ask questions without prejudice, an opportunity to become informed of the objectives, policies, and ideals of his organization. In short, through knowledge and understanding, he desires to become a part of the industry in which he works, and not the servant of a master.

The success of any plan of employee representation depends upon sincerity of purpose, on the will and desire of management and workers to regulate their mutual interests through conference and cooperation. If a representation plan, initiated by either group, is based on ulterior or unworthy motives, it is doomed to failure. Most of the present plans of employee representation have been built up independent of organized labor, but there are striking instances of the development of plans in coöperation with labor organizations, notably in the clothing and transportation industries.

7. *Representation controlled by size of organization.*—The structure of a plan of employee representation is built around the central idea of joint conference, the committees being made up of representatives of the general forces and of management. The plan of representation, of course, has grown out of the increased size of industrial organization, which

has made it impossible for the executives to know, personally, all workers in the organization. The first consideration is that of the degree of representation. Each craft or vocational group would naturally have representation. The number of constituents for each representation would be controlled by conditions within each industrial organization, and by its size. A good average might be one representative for about each fifty employees. The number of representatives that it seems advisable to fix as a limit for a given conference committee would also have an influence on the size of the constituency.

A joint conference provides for discussion and deliberation in which all take part. The group should not be so large as to preclude sufficient expression of all possible viewpoints, or to make it difficult to get at all the facts as a basis for final understanding. The plan should define clearly the method of selecting employee representatives, referring particularly to the qualifications to vote and to hold office. Procedures in nominations and elections should be clearly defined and should include, without doubt, election by secret ballot. The term of office of representatives should be given consideration. It should not be so short that the usefulness of their experience is lost, or so long that only a few individuals may become representatives over a reasonable period of years. One year might be considered a good compromise.

8. *Selection of representatives of management.*—

Careful provision should be made for the selection of representatives of management, and the number of management representatives in proportion to those of the general forces. In actual practice, this number varies from one management representative for each committee to a number equal to the workers' representatives. It would seem wise to have the number of the former less than the latter; in many organizations, one representative of management on the committee seems to be all that is necessary for effective results.

The level of supervision from which to select management representatives should be high enough in authority to permit responsible decisions on many of the subjects submitted for discussion, without the necessity of referring them to higher authority. Two levels above first-line supervision might be suggested as a good mean.

9. *First-line committees.*—The conference committees thus far referred to are what might be called the first-line committees, representatives of which are elected directly by the workers. In a vertical structure, provision should be made for passing matters to higher level committees that can be organized by selecting members of first-line committees to function on the next level, and from this group to higher levels. For example, there may be shop committees, division committees, and general department committees, each, in the ascending levels, considering matters referred to them that are broader in scope

than the problems that could be handled on the lower levels.

Meetings of joint conference committees must be scheduled regularly, if interest in the plan is to be maintained. On the part of management representatives, at least, a program for each meeting should be planned in advance, but subjects brought forward by the employee representatives should always be given first consideration. In most plans it seems customary for the senior management representative to act as chairman of the joint conference committee. Conference leading is an art and the chairman assumes almost the entire responsibility for the success of the meetings and for bringing to satisfactory conclusions the discussions of each subject brought forward.

10. *Keeping records of meetings.*—A careful record of each meeting should be prepared in order that all concerned, particularly the constituents of the representatives, may be informed of the committees' actions. These minutes give the upper levels of management an opportunity to review the current performance of individual committees under their supervision.

One feature that must not be overlooked, and to which well-prepared minutes will contribute assistance, is the necessity of keeping the first line of supervision fully and promptly informed of committee actions. Immediate following up of the recommendations is essential to success.

The beginning of this discussion developed that employee representation was the projection of the conference and discussion method of control down through the general forces, so that this new spirit of management would permeate the whole organization, and make each individual realize the value of his contribution. The success of a plan of employee representation depends wholly on the attitude of management toward it. From the president down through all levels of executive control, there must be active and whole-hearted support, based on sincerity of purpose.

## REVIEW

State the fundamental purpose of bringing management and men together.

Explain the trend in management that has led to the development of employee representation.

State the two main objects of employee representation.

Discuss the importance and fundamental policies of the joint conference committee plan.

Outline the method of determining the representation and size of a joint conference committee.

Discuss the methods followed to select the representatives of the employees and the management.

What is meant by "vertical structure" in a representation plan?

Describe the procedure recommended regarding meetings and minutes of meetings under a joint conference plan.

Outline briefly any employee representation plan that may be in operation in your own organization or some other with which you may be familiar.

# CHAPTER IX

## MEDICAL AND HEALTH SERVICE

1. *Health as an efficiency factor.*—Of all measures contributing to the security of the individual in his physical and economic status, good health is perhaps the most important. Sickness, or poor physical condition, strikes at the very roots of a worker's productive efficiency, threatening seriously the economic security not only of the worker himself, but also of those dependent upon him. From the employer's standpoint, sickness among workers means inefficiency, high labor turnover, and low production.

Management was slow to realize that it was in any way responsible for the health of the individual employee. The slow development of industrial health service and sanitation was largely a result of general ignorance of the subject. During the latter part of the nineteenth century, some industrial organizations, chiefly because of the isolated locations of their plants, established medical service for their employees. During the same period, state legislatures began to give evidence of interest in the development of industrial health. It was not until about 1910, however, that laws were passed with enforcement provisions, placing upon employers the

obligation to adopt measures for workmen's compensation insurance. These enactments applied primarily to the obligation to care for accident cases, but later, responsibility of employers for insurance against occupational diseases was also imposed. As an outcome of these obligations, many large industrial organizations established medical departments, primarily to care for accident cases.

2. *Industrial health programs.*—Out of this effort to comply with the laws grew a realization, on the part of employers, that, if they desired maximum efficiency in their organizations, they must have physically competent workers, and that the development of industrial health programs was necessary in the interests of economy, with the cost fully realized. As a result of this conviction, hundreds of industries have gone far beyond the existing legal demands in providing medical services for their employees. Medical and health service has thus become one of the most important elements in the personnel program.

The scope of the medical and health services and the organization of the medical department in an industrial organization, in the effort to insure the health of employees, must be adapted to the size of the organization and to the environment in any given situation. The following description outlines what might be considered a maximum effort of service, which, of course, could not be justified from an expense standpoint in many companies of small size.

3. *Duties of medical service in industry.*—The

medical service developed by many industries covers, in general, the following duties:

(a) Treatment of injuries received in the course of employment
(b) Physical examination of applicants and employees
(c) The prevention and emergency treatment of minor illnesses
(d) The guidance of employees in their quest for sound medical advice and treatment

Some few companies, through their medical departments, give full and complete medical service to their employees, even extending this service to the families and dependents of employees. In general, however, it seems wise to limit actual treatment to cases of minor illness, and, in cases of serious illness, to confine the activities of medical departments to the function of guidance indicated in item (d) above.

4. *Professional medical service and its administration.*—The organization of a medical department should facilitate the two main functions of the department—professional medical service and administration. The latter should serve solely to promote the efficient handling of activities of the professional medical service. In the medical department, the purely professional work includes:

(a) Treatment of emergency cases of sickness while on duty
(b) Minor accident cases
(c) First-aid treatment in major accident cases
(d) Supervision of medical treatment in major accident cases

(e) The physical examination of all applicants for employment
(f) Complete physical examinations among employees for the diagnosis of possible disease
(g) Periodic physical examination of employees

The medical officers should advise on all medical or surgical problems, on possible improvements in working conditions and environment, and on measures for maintaining and improving the physical condition of individual employees. They should also give helpful advice and instruction, if necessary, to the supervisory forces to aid them in their duties connected with effective health supervision. The medical officers should keep in close touch with public health departments, and should be informed at all times regarding the requirements of state compensation laws and the method of administering these laws. Briefly, the administrative work of the medical department comprehends supervising the personnel of the department—including the selection, employment, and instruction of members of the staff, standardizing and systematizing medical activities, and disseminating recommended health practices and routine medical findings to supervisors and throughout the operating force.

5. *Senior medical officer.*—It is customary in many companies for the senior medical officer to be medical director in charge of both the professional and administrative work of the medical department. Other companies have considered it a waste of high pro-

fessional talent for medical men to devote a large portion of their time to purely administrative effort. This administrative responsibility frequently is delegated to a non-medical man, preferably one with operating experience in the supervisory forces. With this background, he can coördinate more efficiently the work of the medical department with that of plant operation. In developing the organization, therefore, a medical director may be selected to be responsible for professional work, and a manager of the medical department to be responsible for all administrative affairs.

6. *Medical directors.*—Medical directors may work either on full-time or part-time, depending upon the volume of work demanded of them. The size of the medical staff, including a sufficient number of nurses and supervisory and clerical personnel, is dependent upon the number of employees and the volume of medical work. In all cases requiring the advice of specialists, the consultants usually will be employed on a part-time basis.

7. *Physical examinations.*—Very brief comment may be made on some of the functions of the medical department. The physical examinations of applicants should be made on a uniform basis throughout a given company. The examination is the beginning of the health record of the man employed, and perhaps the value of such an initial record for future use is greater than the immediate objective of securing a healthy working force.

A physical examination at the time of employment will tend to throw applicants into four classes. The first, and by far the largest class, will include those of good physical condition, capable of working in any occupation. The second class, smaller in number, will include those who have certain permanent physical defects that limit their ability to certain occupations. A third class, also few in number, will have remedial physical defects, that will require cure or correction before employment is offered. The fourth class covers those who are physically unfit for any occupation with the company.

A company would not be discharging its social obligations, if it restricted its selection of employees to the first class—those in the best physical condition —when certain positions can be filled adequately by individuals who may be subnormal in physical qualifications. Furthermore, entrance physical examinations should not debar from employment applicants with minor physical defects because of considerations affecting some benefit plan that the company may have in operation. In other words, physical examination of applicants should not be made merely because a company has a benefit plan and wishes to play safe financially.

8. *Periodic physical examinations.*—Periodic physical examinations of employees are of high value in the maintenance of health. They sometimes disclose symptoms indicating the incipient beginnings of serious physical trouble that, through discovery and treat-

ment, may be prevented from reaching culmination. Because many workers resent compulsion in matters of this kind, it is customary to make an offer of periodic physical examinations and allow the individual employee to decide whether or not he will avail himself of the service. Tactful handling of the situation avoids ill-feeling and suspicion.

9. *Training in first aid.*—As an educational force, the medical department should give definite advice in all accident prevention measures and in training in first aid. Perhaps the highest contribution that a medical department can make, however, is in health promotion. One doctor in industrial medicine has happily called this "preventive maintenance." Cure of sickness or disease follows a clear-cut professional technique, but preventive measures for the maintenance of health can be secured only through the process of education. Remarkable results have been achieved in industry in the reduction of sickness and its attendant absenteeism, through the organization of health courses giving instruction in personal hygiene, nutrition, and sanitation. Company magazines are used effectively in disseminating knowledge to encourage good health habits. This last element of responsibility—health maintenance—must be shared actively with the supervisory force, the members of which are in personal contact with the workers. The medical department should coöperate in every way to aid the supervisory force in the discharge of this responsibility.

## REVIEW

Discuss the factor of personal health in regard to its importance from a business standpoint.

Explain how industrial health programs came to be developed.

State the major duties connected with medical service.

List the professional functions of a medical department.

Outline the method of handling the administrative work of a medical department, and of developing the organization.

Name the four health classes into which applicants for jobs may be divided.

Discuss the use and value of periodic physical examinations, and general educational efforts in health promotion.

Outline briefly the provisions your own or some other company has made for medical and surgical service, and list the members of the medical organization and their major functions.

# CHAPTER X

## BENEFITS AND PENSIONS

1. *Protection of employees.*—Benefits and pensions appeal directly to the desire for security which dominates the life of every individual. The protection of employees against losses due to sickness, accident, and death, is a problem that has long been given serious consideration by both employees and employers in business and industry. In efforts at solution, the initiative has sometimes been taken by employees for their mutual protection, and sometimes management has taken the responsibility. A variety of benefit plans, consequently, has developed which depend for their character upon the group that assumes the responsibility for finance and operation.

The several plans now in operation in industry may be classified as:

(a) Mutual
(b) Contributory
(c) Non-contributory

In the early development of these plans, mutual benefit associations were organized entirely on the initiative of the employees. Two or three decades ago, most industrial plants were small. The workers knew one another and the environment favored the

independence of the workers in the organization and operation of these associations. Later, as the size of industrial organizations increased, making personal contacts among all the workers difficult, if not impossible, management interested itself in the initiation and encouragement of these associations.

2. *Mutual benefit associations.*—Before the organization of mutual benefit associations, cases of distress among fellow workers due to sickness, accident, or death were dealt with by a rather haphazard method, dependent upon the voluntary contribution of friends. This unsatisfactory condition prompted the organization of mutual benefit associations to provide systematic protection against accident and illness. Funds to provide this protection are secured from dues or assessments paid by the members of the mutual benefit association. Sometimes an initiation fee is required.

There is considerable difference of opinion as to the best method of securing funds. Many associations endeavor to have regular dues, payable at stated intervals, cover the whole cost. Other cases are found where dues are paid to meet the normal expenses of the fund, with assessments levied to meet emergencies, such as the death of a member, or to build up a weakness in the treasury reserve. Uncertainty in the total amount to be paid under the assessment plan is likely to cause dissatisfaction among the members.

3. *Membership in mutual benefit associations.*—

Membership is voluntary in mutual benefit associations organized by the employees. Such is also the case in most of those initiated by management. Compulsory membership is rare and the consensus of opinion has been strongly in favor of making membership a voluntary act of each employee. Able officers are required for building up membership. These officers should be active and enthusiastic in building up the prestige of the association and in convincing eligible employees of the desirability of membership. The best measure of the success of the enterprise is to have a high percentage of the eligible employees in the membership. The benefits commonly paid by mutual benefit associations are for temporary disability due either to sickness or accident, and for death of members. The amount paid in benefits should bear some relation to wages received. It should be sufficient for sustenance during the period of illness, but should not be so near the active earnings as to encourage undue prolongation of the period of illness. Many existing associations make payments varying from 50 to 75 per cent of wages, with perhaps 60 per cent as a good average.

Mutual benefit associations cannot assume the responsibility of paying high death benefits. An amount sufficient to pay for funeral expenses is about all that can be expected of them. In some cases, this feature of an association's plans is secured by a group insurance policy with a commercial insurance company.

4. *Officers of the associations.*—The administrative organization for carrying on the operations of the association consists usually of a president, a vice-president, a secretary, a treasurer, and usually a governing board, such as a board of trustees, or a board of directors. Some organizations also have a medical director. Committees function with specific objectives, such as those implied in a finance committee, a membership committee, and a visiting committee, this latter keeping in personal touch with members temporarily disabled and receiving benefits. In mutual benefit associations, these officers are usually elected by the members from among their fellow employees. The complete responsibility rests with the members.

5. *Associations in which both employees and company contribute.*—The second class of benefit association is that in which both employees and company contribute. Of course, even in the first class just discussed, management gives its sympathetic interest and coöperation, often administering a payroll deduction procedure in the payment of dues, providing office space, and giving officers of the association time off when necessary to perform their functions. But the company does not really participate unless it makes a definite contribution to the benefit fund.

Participation in payment of dues by companies varies so widely, that it is difficult even to indicate the trend in this participation. A number of companies pay one dollar for each dollar contributed by

the membership. The definite advantage of company participation and contribution is that it enables the association to pay larger benefits, and also exhibits the company's coöperative interest in the objectives of the association. With the company thus participating, it is usual for company officials to take part in the operations of the association. The company logically would have representatives among the officials of the association and membership on the board of trustees.

6. *The non-contributory plan.*—The third class of benefit associations is that built on the non-contributory plan. Under this plan the company assumes full responsibility for employees' disability benefits and death benefits. The employees make no financial contribution in support of the plan. These plans usually have pension provisions, which will be discussed later. The administration of the plan lies wholly with management, and almost invariably this responsibility is placed upon the personnel department of the company.

As in the other types of benefit organizations, company benefit plans give accident disability, sickness disability, and death benefits. The amount granted and the time covered, during temporary disability, vary considerably among companies that administer non-contributory benefit plans. As an illustration of a plan which might be considered conservatively liberal, employees temporarily disabled through accident receive full pay for thirteen weeks

and half pay for the remainder of the time they are disabled. Sickness disability benefits usually vary with the term of employment. For example, employees with ten years or more of service receive full pay for thirteen weeks and half pay for thirty-nine weeks; employees having between two and five years' service receive full pay for four weeks and half pay for nine weeks.

7. *Death benefits.*—Death benefits usually are payable only to the wife or dependent relatives of the deceased employee. These benefits vary in amount from a minimum that will cover actual funeral expenses, to a more liberal amount that will insure comfort to the dependents during the trying period of readjustment. The instances of six months' pay as a death benefit following sickness, and a higher amount for accidental death benefit, are given merely as illustrations. Increased benefits sometimes are given for death due to accident in service. These non-contributory benefit plans usually are put into effect in large corporations of great stability and financial strength. Disbursements under the plan are charged to current operating expense.

8. *Pensions.*—Pensions are treated separately because of the important considerations involved. They give to employees a measure of security after the close of their productive years of service. No industrial organization has the financial strength to administer, nor could it justify the payment of, pensions liberal enough fully to support a retired

employee during his declining years. It is not socially sound, moreover, to take from an employee the responsibility of providing for his own security in later life. This consideration emphasizes the importance of thrift, which will be discussed in a later chapter.

To become a beneficiary of a pension plan, an employee must have a certain minimum amount of continuous service, let us say twenty years. Age requirements may be either compulsory or discretionary. There are variations in this element, but sixty years might be suggested as an age at which an employee may apply for retirement, or at which the management may compel retirement. Some companies have set the age for compulsory retirement at sixty-five, others at seventy years. The amount of the pension varies greatly in different organizations, but an award in quite general use is one per cent of the average salary for the last ten years of service, multiplied by the number of years in the recipient's term of employment.

9. *Financial stability in pension plans.*—In the establishment of a pension plan and in its continuance, as well, it is imperative that most careful consideration be given to its financial stability. No company can afford to risk the stigma of betrayal of trust of its employees in the failure of a pension plan once established.

Pension plans never can succeed in their financial aspects on the basis of making pension payments out

of current earnings. The only method to establish financial security is to set up a trust fund. From the beginning of employment, each year of service of each employee in an organization creates a liability against the pension fund. Each year, therefore, there must be set aside in the pension trust fund the amount needed to cover this liability. To calculate the annual contribution required, an intensive actuarial study should be made. Among important factors to be given consideration are:

(a) The numbers of employees in each year of service
(b) The ages of these employees
(c) The probable growth in the number of employees, projected as far as practicable into the future
(d) A careful estimate of the number of employees who will remain with the company until qualified for retirement

Actuarial calculations on the basis of these and other facts should give the results sought, namely, the annual contribution that must be made to the pension trust fund. One important factor not yet mentioned will tend to relieve the company of much of the financial burden. That factor is the magic of compound interest. The pension trust fund, held separate from the finances of the company and wisely invested by the board of trustees of the fund, will produce income that will markedly decrease the company's actual outlay. What might be called a rule-of-thumb method, but which is based on actuarial experience for determining the amount of a com-

pany's annual contribution to the pension fund, is two dollars for each one hundred dollars of the payroll. Building the financial structure on this plan should insure to those employees who reach a retirement age, say at sixty-five, a reasonable pension. Companies that did not start a plan to insure building up the annuity reserve must make annual contributions, of course, to correct this situation and assure the solvency of the plan.

10. *Fundamental reasons for pension plans.*—In the previous discussion of the mechanics of benefit and pension plans, no mention has been made of fundamental reasons justifying the establishment of such plans. From the viewpoint of the individual employee, however, these plans satisfy his desire for security. But is there an impelling demand upon industry to participate in, or establish, such plans? It probably would be hard to establish the thesis that there is a moral obligation involved. It is specious to hold that the plan is offered as a reward for long and faithful service. Facts do not appear to prove that these plans promote efficiency or cause reduction in turnover by tying people closer to their employment.

Through the new conception of the relation between employer and employee, that is, eliminating the master and servant idea, and making the individual know and feel that he is a part of the business, it would seem but natural to hold out the helping hand to a fellow workman in distress. Without en-

deavoring to break it down into its elements, the impression is general that the operation of these plans is good for the business. Finally, the progress of social thought has placed upon industry certain responsibilities in this benefit field that can best be met by organized procedures that go more than half-way in meeting these imposed responsibilities.

## REVIEW

State the fundamental principles upon which benefit plans are based.

Name the three classes of benefit plans.

Discuss the provisions for membership and payment of dues in mutual benefit associations.

Outline the policies followed for the payment of benefits in mutual benefit associations.

What are the functions of officers and committees in such associations?

State the advantages of a contributory benefit system.

Discuss the sickness, disability, and death benefits in non-contributory associations.

Outline the basis and operation of a sound pension plan.

State the factors to consider in calculating the annual contribution required for a pension fund.

Why are pension plans of importance to business organization?

# CHAPTER XI

## THRIFT

1. *Advantages of a thrift plan.*—In the plans for promoting economic security previously discussed, it was made clear that, however generously disposed an employer might be, it is financially impossible, even if desirable, to give employees absolute protection against future emergency. Encouragement of thrift, therefore, is one more important field that, properly developed, becomes a powerful economic incentive.

Aside from the security provided through a sound individual thrift plan, a person whose economic status is improving is likely to develop faster in other ways than one whose material resources are continually exhausted by the mere cost of existence. Self-confidence, self-reliance, peace of mind, freedom from worry, greater satisfaction in life and efficiency in work, greater value to one's family, and increased esteem in the community are developed.

A wise management, knowing these facts, will recognize as one of its responsibilities in the conducting of the business the help and encouragement that can be extended to employees to work out such solutions of their personal financial problems as will

yield these desirable results. In the exercise of this responsibility, management will in no way encroach upon the free exercise of the individual's initiative in facing his or her personal problems. It will provide opportunity, and, with an easy, definite, and systematic method of saving, will stimulate the employees during their productive years to carry on a well-considered thrift program that will provide for them at the age of retirement a comfortable living in a status comparable to that enjoyed during their working years, or, in death, an estate that will add much to the comfort of dependents. If a pension plan is in operation within the company, it will, in a measure, assist the long-service employee in establishing a competence.

2. *Important phases of thrift.*—The subject of thrift is quite logically divided into three main subdivisions:

(a) Permanent savings, wisely invested to provide steady income, which income, reinvested, increases savings
(b) Life insurance, which provides security for the wife and other dependents
(c) An auxiliary savings plan which builds up a reserve to meet the financial emergencies of life

To serve the first of these thrift objectives, many organizations have developed plans making it possible for employees to become stockholders in the company. Aside from the thrift motive, experience with stock-purchase plans indicates an increasing

interest of the worker in the success of the enterprise, and, along with that interest, improved stability of employment.

There is nothing to prevent an employee from sharing in the profits of his industry through the purchase of stock, but it is hard for him to do this out of his individual savings without some encouragement. Many industries have given him this opportunity through stock-purchase plans. Usually, these plans provide for the purchase of stock by the employees, with payments made at the end of each pay period, spread over months, or even several years. Payments usually are made through payroll deduction. Almost invariably, it is to the advantage of the employee to purchase stock through the plan. An extreme plan is one in which the company makes a gift of these stocks, but this procedure is rare. The company usually aids in the purchase by selling the stock at a price considerably below the market. To employees who are already holders of the company's stock, it is not unusual to permit applying dividends to the purchase of additional stock. It is customary, during the period in which payments are made, for the company to pay interest on deposits made, compounding the interest periodically.

3. *Dangers in the stock-purchase plan.*—There are dangers in the administration of a stock-purchase plan. It would be unwise for a management to undertake one if the stock of the company were highly speculative and fluctuated greatly in price. The sit-

uation is likely to become acute during adverse business conditions. This danger applies particularly to common stock. Efforts to meet it are usually in the direction of offering the stock to employees at a price low enough to protect them against fluctuations of the market.

For more complete protection, some companies have offered to employees their preferred stock, with fixed dividends, because stock of this character is more stable in price. The non-voting restrictions on these stocks make them less attractive to employees, who like to feel that they are participating owners in the company. Preferred stock with voting privileges would meet this objection. Limits on the amount of stock that each employee is authorized to purchase are necessary, to remove the temptation to subscribe in amounts that would work hardships on himself and his family.

4. *Life insurance.*—The second division in a well-rounded thrift plan is life insurance. Nothing is more uncertain than the length of life of an individual. No one who has dependents can afford to disregard this protection. Beyond death benefits many companies have undertaken insurance plans giving to employees varying degrees of financial support, paying the full premium on a limited amount of insurance, contributing in part, or simply administering a plan to facilitate and stimulate the employee in making effective this personal responsibility. Where the company contributes, the principle of group insurance usually

is applied. A policy is written by an insurance company covering all the workmen in the organization. There may be one policy covering all, or a policy for each individual employee.

The premiums are paid in a lump sum by the company. If employees participate, the company collects their contributions. Because of the wholesale nature of this transaction, premium rates are considerably lower than those charged for individual policies. Usually, employees are insured without physical examinations and without discrimination against hazardous work. The policy ordinarily covers permanent disability benefits. In group insurance, there is provision for an employee to carry his insurance on an individual basis, if he should terminate his employment with the company.

5. *Motives back of the insurance plan.*—The amount of group insurance carried on each individual when the premiums are paid by the company must necessarily be small—say, from $500 to $1,500, depending upon length of service. The motive back of the insurance plan varies with the employer, perhaps the most common motive being to bind workers more closely to the company, to increase loyalty, and to decrease turnover. There is no general agreement in industry that insurance serves these purposes, but no doubt is expressed that insurance payments bring much needed relief to the dependents of deceased workers.

Many companies, however, go only so far as to

set up an administrative procedure that will make it convenient for the employee to secure life insurance, and facilitate payment of premiums. It is common for an organization to make arrangements with a single standard life insurance company whereby premium payments on all forms of life insurance may be made through deductions from pay. The insurance company gives, to each individual, expert insurance advice in meeting his insurance problem, and helps him to select a policy best suited for his purpose. Policies under this plan are ordinarily granted without physical examination, with insurance running to a maximum of $10,000 in amount.

The setting up of this helpful administrative procedure, with the overhead cost borne by the company, is based on the principle that the easier you make it for a man to take out life insurance, the more likely he is to do it.

6. *Aspects of financial preparedness.*—Financial preparedness has two aspects. One looks into the distant future and is concerned with providing a competence when earning power has diminished or ceased. Stock-purchase plans and life insurance meet this part of the problem. The other part deals with the demands for the immediate future and is concerned with making ready for them. Following the policy to encourage thrift, many companies have developed plans that would enable employees to save money to meet immediate future expenses, such as providing payment for the winter supply of fuel, taxes, vaca-

tion expenditures, interest on mortgages, etc. These expenditures come periodically, but are distinct from the current weekly and monthly costs of living, and preparation must be made to meet the demands when due.

An employees' saving plan offers a sound solution for this particular financial problem. A successful plan of this character has the following primary features:

(a) Accumulation of savings by regular periodical deductions from salaries or wages upon authorization of employees
(b) Establishment of individual savings accounts for employees, in selected public savings banks
(c) Periodic deposit of funds withheld from salaries or wages to the credit of such savings accounts
(d) Withdrawals to be made by employees dealing directly with the savings bank in which the accounts have been established

It will be noted that such a plan places no obligation on the employee, his participation being voluntary and effective only upon his application. Minimum deductions are small, perhaps fifty cents per week for weekly- and hourly-rated employees, and two dollars per month for those monthly rated. The company exercises great care in the selection of the savings bank that will receive the deposits.

7. *Administering the individual thrift plan.*—An individual thrift plan implies a saving wage. No worker can provide for his future when his wage covers the bare costs of living. Moreover, an indi-

vidual must carefully plan his financial program to insure that his participation in the several phases of a thrift plan is within his means. The annual budgeting of his expenses, based on careful calculation, would make clear to him the amount that he can save.

The successful administration of thrift plans depends upon education, as in other activities. The supervisory organization has a definite responsibility in carrying out these plans. Each member of the organization should be thoroughly informed of the purposes of the plan and the results desired. The most effective way to secure the interest of employees is through personal contact, and, without doubt, the person to make that contact is the individual's supervisor. To operate successfully, this influence starts from the top and proceeds down through the various organization levels, until all know the values that lie in these plans.

The responsibility of the personnel department is to direct the thought of the supervisory organization upon thrift matters and to interpret the objectives and results for the members of the staff.

In the chapters on employee representation, medical and health service, and benefits and pensions, we have dealt with what might be called economic incentives—as they all tend to improve the economic status of the individual employee, and aid in giving him a true sense of security. We must now turn our attention to another important phase of the subject, namely, that dealing with financial incentives.

## REVIEW

State the advantages, to an employer, of a thrift plan, and the policies upon which such a plan should be based.

List the three phases of a thrift program.

Discuss the advantages and limitations of a stock-purchase plan.

How can a company help its employees with their life insurance programs?

Explain the group insurance plan and its advantages to the workers.

List the four primary features of an employees' savings plan.

Outline the life insurance or group insurance plan, or some form of thrift plan that your own or some other company may operate.

# CHAPTER XII

## WAGES, INCENTIVES, AND WORKING CONDITIONS

1. *Compensation of workers.*—In considering the well-being of the worker and his security and progress, the question of compensation is one that is absolutely vital. His wage is the focal point in his relationship with his employer. Industrial enterprises today are built upon the principle of free labor, which implies a compensation to the worker, by and large, in proportion to what he is able to contribute socially through organized endeavor. The problem of wage schedules is, therefore, one of the most difficult with which management has to deal, because it is necessary that the worker's compensation be accurately measured and paid, in proportion to his contribution.

2. *Distribution of increased profits.*—Looking at the question broadly, the wages of workers and the wages of capital invested come out of production, in which the public also is interested. If, from any cause, the cost of a product is reduced, making possible increased profit, the question of the division of that increase is always important. Should it go to the owners as profit, to the workers in increased wages, or to the public in reduced prices? Efficient

management, labor-saving machinery, and increased skill of workmen all have measurably decreased the cost of production.

In the just distribution of this increment of wealth, it would seem that all three elements—the workers, the owners, and the public—should share in the benefits. Increased efficiency, then, makes for increase in wages. This factor, taken with the new economic theory that high wages mean high consumption and increased production, making for greater prosperity, has convinced the employer that he must think up ways and means of paying the worker the most the business will stand—not the least. The application of this theory will insure to the worker his full share of all improvements in productive processes.

3. *Control of the wage level.*—While real wages actually have been rising over a long period of years, it is doubtful whether much of this improvement has been due to the conscious application by the employer of the theories above expressed. In the practical solution of this difficult problem, the employer tries to determine the average current wages for similar labor in the community, and pays the worker the wage that he believes will keep him on the job. Practically, that is the wage that all industrial organizations pay, plus whatever premium or incentive is found effective for stimulating the more competent and industrious workers to increase production.

The wage base of a task in any community, therefore, in the last analysis, is what workers in that com-

munity can command for that task. It may be low because of worker competition, or high because of scarcity of such workers, or it may be temporarily controlled by a combination of workers. The word "temporarily" is used here advisedly, because union pressure on any class of wage bases is eventually modified by competition of one sort or another.

No kind of artificial control of wages by a combination of workers, or by statute, operates over long periods of time, for the same fundamental reason that artificial control of commodity prices by law or monopoly ultimately fails. The wage level of any community, therefore, sometimes is controlled temporarily by a strategic bargaining power between the contracting parties, more permanently by current supply and demand, and, finally, by the social value of the work done. It is encouraging to note that the latter is having an ever-increasing influence on wage schedules.

4. *Standard method of payment on time basis.*— The test of a sound wage policy is that it attracts and retains adequate numbers of employees, of the types and with the qualifications required for the effective conduct of the business. The wage progress of the worker should be maintained in proper relation to his general development in vocational skill, business capabilities, and other aspects of the job.

Careful consideration should be given to the time required in moving from the starting rate to the top rate in a craft, determining an average in order that

the progress may not be too slow, but basing wage increases on demonstrated merit and proficiency. Management always should assume a constructive, rather than a defensive, attitude on all wage questions. By securing facts with respect to the compensation in all other lines of endeavor, it insures employees at least the going wage of the community.

The procedure that has been described above is what may be called the standard method of payment on the basis of time, the worker being paid at a fixed rate by the hour, by the day of a fixed number of hours, or by the week. It is clear that the important element in this method of payment is time served. The only reward to the more efficient employee is through promotion or more rapid advances in pay.

5. *Piece rate as an incentive plan.*—To reward workers on the basis of their productive effort, industry has given intensive study to methods of measuring the production of the individual employee and paying each one in accordance therewith. This plan has resulted in the introduction of a number of wage-incentive systems that have proved successful in many lines of endeavor.

The most general of these systems of wage payment is the piece-work system. Under this method, a worker is paid a set rate for each unit of output he produces. The piece rate furnishes a powerful financial incentive and the more intelligent and ambitious workmen are stimulated to work harder, faster, and, in general, more efficiently than they would otherwise,

knowing that increased output brings increased pay. If a man is unskilled, slow, or lazy, his earnings will be low. Of course, this piece-rate method can be applied only to repetitive tasks where a unit of output can be related accurately to time.

6. *Determining the standard piece rate.*—By a careful time and motion study, management determines the output in units, during a given time, for the average worker and makes this the standard on which to base the piece rate.

The success of the piece-rate system rests upon the accuracy and sincerity of the management in determining this standard. There also rests on management the moral obligation never to lower a piece rate once established. A change in process, replacing the old one, demands new time and motion studies, and determination of a new rate that, in relation to the old job, should insure the worker against loss. The successful application of this piece-rate system not only creates a strong financial incentive for the worker, but also increases production at lower unit cost.

While piece rates generally are applicable only to repetitive work in factories, successful applications of this method are found among office workers in such operations as billing, posting, payroll computations, writing circular letters, and addressing envelopes, and exceedingly satisfactory increases in output have been obtained. Group piece rates also have been worked out effectively where members are engaged

on the output of a product which requires teamwork for its successful performance.

7. *Standard-hour method of wage payment.*—A modification of the piece-rate system is the standard-hour method of wage payment. Under this plan the standard time is set exactly as if for a piece rate. The standard amount of work per hour is established, and for each multiple of this quantity that a workman produces he receives his hourly rate. Usually a chart is furnished showing the standard amount per hour, and sometimes a supplemental table showing the equivalent rate per piece at current hourly rates. The main advantages of this method are that it is just a piece rate with the rate left off; it is equally simple, but readily permits changes in wage level and also allows varying rates for different operators. Also, when a standard hour's work is carefully set, it can be guaranteed for all time, because it is independent of wage changes.

There are many other wage bonus plans that cannot be described here because of lack of space. They usually have taken the name of the author of the plan, such as the Emerson Efficiency Wage, the Parkhurst Differential Bonus System, the Halsey Premium Plan, and others.

Undoubtedly, it should be the goal of scientific management to determine a basis upon which every worker could be paid in accordance with his productive effort, and training in skill should be made available to him so that he may reach his highest capacity.

While at present there seem to be distinct limitations in the field of exact measurement of productive effort, the continuation of the application of the scientific method to problems of human behavior may make this question capable of solution.

8. *Compensation of the supervisory forces.*—During the World War, with its insistent demand for ever-increasing production, and the shortage of labor, wage increases received great impetus. The high wages of skilled workers brought about the distressing situation, in some instances, in which the workers were receiving higher compensation than the supervisors over them. The supervisory levels received little or no attention in the matter of salary adjustment. This condition brought forcibly to the attention of management the need for increased recognition of the services of supervisors and executives.

9. *Profit-sharing plans.*—Since the war, readjustments have been slowly made and much thought has been given to the development of financial incentives for executives. Usually, these have taken on the character of profit-sharing plans. After net profits have been determined, interest paid on bonded indebtedness, dividends on the preferred stock, and the usual or appropriate dividend set aside for the common stock, a portion of the balance remaining may be considered a fund from which rewards may be paid to executives, as bonuses or financial incentives. The board of directors would determine the percentage of this balance that might be considered

available for this purpose, being influenced, of course, by the portion of the amount that should be set aside as surplus.

10. *Distribution of financial incentives.*—Methods of distribution of financial incentives to executives vary greatly. Sometimes an arbitrary method is used, usually based upon the judgment of the chief executive, of the amount to be awarded to each individual on the basis of the value of his contribution to the business. Usually, under this method, the approval of the board of directors is required.

Realization of the fallibility of human judgment, however, has caused most executives to seek a more equitable method of distribution. As position and salary already indicate, with some definiteness, the value of the individual's contribution to the business, perhaps the most usual method of distribution of this fund is in proportion to salary received. One variation in these methods is not uncommon in the case of corporations that have branches located in different areas. The lump sum available for incentives is apportioned to the several branches for distribution in accordance with the amount of profit that each branch has contributed to the business. Bonuses of this character, of course, are dependent upon the prosperity of the business. They are controlled by the balance sheet. If there are no excess profits, there can be no profit sharing. In rare instances, bonuses are paid regularly, charged to operating expense independent of the balance sheet.

Some few companies have used the method of profit sharing not only as a financial incentive for executives, but have carried it down into the general forces, usually as additional recognition for long and efficient service. One company has reported that fifty per cent of its workers have been enjoying the benefits of this plan. There seems every justification, when practicable, for the conservative use of financial incentives to both executives and workers, as rewards for highly efficient service, as stimulation to greater effort, promoting loyalty, devoted service, and high morale.

11. *Effect of good working conditions on employees.*—Good working conditions have a profound effect upon the contentment of the worker and upon his efficiency. Satisfactory environment begins with the physical plant itself. It should be constructed to serve best the production objective of the enterprise. There is no reason why it should not be pleasing in its architecture, and the grounds surrounding it should be clean and attractive. The physical layout of space and equipment should contribute to the easy flow of materials for processing and to ease of assembling the finished product. Delays in delivering material to workers prevent them from turning out maximum production.

12. *Important factors affecting working conditions.*—Management has a moral responsibility to eliminate from the plant all possible physical hazards that may result in injury to the worker. Fire haz-

ards must be reduced to a minimum. Guards and safety devices should be part of every machine tool. With the present-day motor-driven tool, many of the dangers connected with high-speed, overhead transmission belting are eliminated.

Good ventilation is essential to health and efficiency. Air in the work rooms must be fresh, uncontaminated, and in motion. Ventilation systems should insure also correct humidity of the atmosphere.

Temperature should be regulated to avoid excessive heat or cold. Good lighting is essential to effective work. Daylight from the proper angle is preferable, but the excellent artificial illumination now available can well be used to supplement sunlight. Aside from the loss it causes in working efficiency, bad lighting contributes directly to eyestrain, headache, and nervous irritation. Noise and vibration should be reduced to a minimum. Work chairs and stools should be adjusted to suit the requirements of the individual worker, so that he may assume the correct posture at his task. The importance of maintaining cleanliness throughout the plant and of making adequate provision for dressing and washing facilities cannot be overstressed.

## REVIEW

Explain the ideal method of sharing increased profits with executives and workers.

Outline the factors that actually determine a wage scale.

What is the practical test of a sound wage policy?

State what is meant by the standard method of wage payment on a time-basis.

Explain the piece-rate method of wage payment, and the obligations of management in setting a piece-rate standard.

Outline the standard-hour method of wage payment.

Discuss two methods of distributing financial incentives to executives.

Explain the effect that good working conditions have upon production.

# CHAPTER XIII

## MISCELLANEOUS PERSONNEL ACTIVITIES

1. *Miscellaneous personnel services.*—There are a number of personnel services that do not permit of major classification. Together with the major activities already described, however, they round out a well-balanced personnel program. They give satisfaction to the employee and contribute in a definite manner to the development of high morale. They contribute also to the personal well-being of the worker, and tend to inspire within him pride in his organization.

2. *Employees magazines.*—One attempt to bring management closer to the worker has been the publication of employees' magazines. As the chief interest of the worker is his job, this medium offers the company opportunity to give information to him concerning the objectives, policies, and ideals of the business. Through the magazine, the employee can get a correct perspective of his own job and its relationship to the work of his associates. The magazine gives him opportunity to keep abreast of all new developments in the company—new processes, new products—in short, he is given a clear picture of the general progress of the industry. Of course, good

editorial work is required to present these subjects in an interesting and dramatic way.

The company magazine is a splendid means for enlisting employees' interest in projects that will benefit the company and themselves—educational opportunities for the workers, good-health campaigns through a health column by the medical director, or an authority on diseases and their prevention, safety measures, and accident prevention. The employees' part in maintaining good public relations, and many other such subjects, may well be covered in leading articles in successive issues of the magazine.

3. *Personal items arouse interest.*—Second in importance to the workers' interest in his job are his interests in his associates, his home, and his recreation. Personal news items are of keen interest and a good share of space can well be given to this class of news. Lively accounts of recreational activities, particularly those organized by the workers themselves, should occupy prominent places in the current news. Articles of interest to women and children should not be overlooked, because such items make the magazine interesting to members of the workers' families. It adds much to the value that comes from the publication of a magazine, to have it read in the home.

It is good editorial policy to have all articles written from the employees' point of view, and they should be readable and constructive. The magazine itself should be attractive in appearance, and should

be well illustrated. Pictures of individuals and groups engaged in social or plant activities always create interest. Contributions by the employees always should be encouraged. In many companies, employee reporters are designated for each department and given some training in the gathering of news and the preparation of copy.

4. *Company libraries.*—As an educational enterprise, company libraries add much to the development and satisfaction of employees. These special libraries are controlled under varying policies, depending upon the specific objectives in view. Some are restricted to books, magazines, pamphlets, and other literature pertaining to the work of the company, and the publications are made available to the workers to encourage them to read with the object of becoming more proficient in their respective jobs. Nearly all libraries operate under this plan, although many have the further objective of providing opportunity for broader development. In the latter type of library, books on science, literature, biography, and general culture are made available for this purpose. Some libraries are further expanded for more general purposes, and they loan books on standard literature and current fiction.

The character of the library facilities provided will depend, of course, on the needs, desires, and background of the employees. Public libraries are highly coöperative in serving the needs of industrial workers and, if the main library or some branch is located

near by, books can be made available readily to employees. There are many instances of the remarkable development of young men and women in industry through systematic reading of worthwhile subjects. A good general education has often been secured in this manner. The personnel department has an unusual opportunity to stimulate such efforts through wise counsel and advice.

5. *Company lunchroom service.*—The provision of lunchrooms or restaurant facilities for employees is a service that has been growing steadily in industry since the World War. The purpose of this service is to provide good, plain, nourishing food at low cost to the employees. Lunchrooms, conveniently located within the plant, provide a pleasant environment, save employees time, effort, and inconvenience, and avoid the unhealthful habit of eating a cold lunch brought from home. Of course, the decision to establish a lunchroom will depend upon the conditions surrounding the plant. There should be a real need for this service before it is provided.

If there are commercial eating places in the neighborhood, which can be conveniently reached, and which serve well-cooked food of good quality, at low cost, in clean and attractive surroundings, it probably will not be necessary for the company to provide this service. The habits of the workers should be considered. If it is convenient for them to return to their homes for lunch, or if they prefer to bring their lunches from home, the facilities of a lunchroom

probably will not attract them. Certain conditions might make the company lunchroom essential—if the plant were situated where no restaurants are accessible, or where the cost of food is too high, or in case the lunch period is short. Under such conditions, lunchroom service contributes directly to the health and well-being of the worker.

6. *Management control of company lunchrooms.*—In the early development of lunchrooms for employees, concessions were often granted to outside individuals, and the management was thereby relieved of the responsibility for the service. But this lack of control resulted in many failures, and the tendency today is for full company control and operation of lunchrooms and restaurants. The manager of the lunchroom usually reports to the head of the personnel department. This manager must have good executive ability and a thorough knowledge of running a restaurant.

In service, the trend is toward the cafeteria type of self-service, which cuts down the expense and is a real advantage to the patron, who gets his food promptly from steam-table containers. The manager usually has on his staff an expert dietitian, who plans meals that provide menus mixed and varied, but with proper proportions of food values. Good management should have for its objective the provision of good food at the lowest possible cost to the employees. It is customary for the company to contribute the space, light, heat, and equipment, and to absorb into

a general plant expense account all charges for depreciation. The price of food to the worker is controlled mostly by the actual food cost and the labor involved in preparing and serving it.

7. *Recreational activities.*—With the shortening hours of labor and the increase in leisure time, more and more attention is being given to organized recreational activities. These activities usually are promoted through social agencies organized by the workers themselves, and are largely in the field of athletics, but include social gatherings of all kinds. Intra-company athletic meets, with teams organized in the various sports within the several departments, promote a spirit of friendly rivalry and constitute a real factor in developing morale.

Although these activities are almost invariably under the control of the employees, management usually contributes in considerable measure to stimulate and encourage these healthful undertakings. The management contribution usually consists in providing facilities—athletic fields, gymnasiums, rooms for social gatherings, and prizes for competitive events. Encouragement by the management should be in the direction of insuring the participation of the largest possible number of employees in organized recreation.

8. *Vacations for employees.*—Industry in America has been somewhat slow in realizing the need or the value of granting vacations to employees. There has been a tendency in recent years, however, toward

more liberal treatment in this regard. The worker, in this period of rest, builds up his reserve and returns to his work with renewed energy and vigor. The granting of vacations seems to affect the problem of absenteeism favorably, and has a tendency to reduce labor turnover. While it has long been customary for executives to receive vacations, and later, office workers, it has been only in recent years that the privilege has been extended to wage earners or hourly rated employees.

Vacation plans vary considerably, but they all provide a period of continuous rest, usually in the summer months. Other organizations give a uniform vacation to all employees after a minimum length of service. Some organizations vary the length of the vacation period in accordance with length of service, but the typical vacation period is two weeks. Almost without exception, vacations are given with full pay. It is quite apparent that, if a loss of income accompanied the vacation period, few of the values of rest and recreation would accrue. In the mind of the worker, it would seem more like a lay-off than a vacation. In setting the wage to be paid during vacation for hourly rated or piece-rated workers, the pay is usually calculated on the basis of average earnings for a forty-eight-hour week.

9. *The housing problem.*—Seemingly, through the payment of an adequate wage, the employer has discharged his full responsibility toward the employee. He gives him this means of providing, for himself

and his dependents, the necessities of life—food, clothing, and shelter.

Conditions surrounding an industry, however, may make the question of housing an important one for management. Industrial communities may have housing facilities inadequate in both quanity and quality, and the responsibility for bettering them may rest with the companies concerned. If an industry is located in an isolated district, the management may be compelled to provide complete housing facilities. If a company undertakes a housing development program, there are serious problems of policy to be decided.

Shall houses be built for sale or for rent? A stable industry, in a settled community, where its employees are having housing difficulties, might justify the building of homes for sale to the members of the organization. By far the largest number of industrial developments, however, are based on the policy of rental to employees.

The type of home to be built is another vexing problem. The solution should be based on a study of the employees' habits and manner of living. A decent standard should be maintained, but, on the basis of a fair return, the cost of the home should be related to the amount of rental that the employee is well able to pay. Without interference with the freedom and privacy of the tenants, such control should be exercised by the owner as to insure attractive surroundings and good sanitary conditions.

The personnel activities described in this chapter are some of the more important of the minor agencies that contribute to the satisfaction, contentment, and morale of the working force. There are many other worthwhile minor undertakings that will repay effort in promoting the well-being of all the employees.

## REVIEW

State the objective of publishing an employees' magazine.

Outline the elements of a successful editorial program for an employees' magazine.

Discuss the two plans under which a company library may be operated.

Under what circumstances should a company lunchroom be established?

Discuss the modern tendencies in the operation of company lunchrooms.

State the means by which the management can encourage recreational activities among the employees.

Outline the vacation policy of your own or some other company.

State the problems a company must face in undertaking a housing development.

# CHAPTER XIV

## THE PERSONNEL DEPARTMENT

1. *Growth of personnel management.*—The foregoing chapters have presented the personnel problems that face business and industry. It must not be assumed that all are of equal importance, either absolutely or relatively. Their relative importance will be determined by each organization in accordance with its needs, and the attitude of the chief executives toward these problems.

Personnel work has been an integral part of business ever since there have been organizations to carry it on. In the earlier development in industry, however, companies were small, and it was practicable for the owner-manager to have daily personal contact with the small number of individual workers under his control. The relationships were direct between man and man, and the contentment and satisfaction of the worker were dependent largely upon the personal characteristics of his boss. The whole personnel problem was simple and elementary.

Many of the activities bearing on the well-being of the worker that have now assumed major importance were not even dreamed of fifty years ago. The large size of present organizations, with grow-

ing numbers of employees, has developed a complex situation. Increasing attention must be given to the problem of human relations in industry. Fortunately, large industrial units not only have the capacity, but they also have the permanency to enable them to deal with complex problems on a continuing and constructive basis.

2. *Influence of the World War.*—Some attention was being given to personnel problems prior to the World War, and a very limited number of farsighted industries had developed personnel departments. The personnel movement received great impetus during the war: first, because of the shortage of labor and pressure for high production; and, second, because of the excellent work done by the Committee on Classification of Personnel of the War Department, which made a scientific attack on the problem of selection and placement.

Personnel work in industry during the war was not built on a firm foundation, because emergency needs were dealt with by emergency methods, and there were no qualified experts in this field. Many of the so-called "efficiency experts," lacking in knowledge and experience, came along with forms and formulas for the solution of all problems in human relations that tended to bring the whole movement into disrepute. Tribute must be paid, however, to numbers of good men who applied high intelligence to the satisfactory solution of many difficult personnel situations.

Because of the mushroom growth of personnel departments during the World War and the rather superficial character of their undertakings, at the close of the war, managements in many industries were still skeptical of the need for, or the value of, the accomplishments of these departments. During the acute depression of business in the years of 1920 and 1921, therefore, many personnel departments in industry were abolished. A number of them survived in the larger and more stable industries, however, and served as the nucleus for the development of personnel management on firm foundations.

3. *Conformation to scientific management.*—Personnel departments since 1922 have been developed along with the acceptance of the general principles of scientific management. In considering the phases of the personnel problems discussed in the earlier chapters of this Text, it is impressive to note how well they conform to the definition of the underlying principles of management developed by Frederick W. Taylor:

> Scientific management, in its essence, consists of a certain philosophy, which results, as before stated, in a combination of the four great underlying principles of management:
>
> *First.* The development of true science
>
> *Second.* The scientific selection of workmen
>
> *Third.* Their scientific education and development
>
> *Fourth.* Intimate, friendly coöperation between the management and the men

Taylor repeats in his "Principles of Scientific Management":

These new duties are grouped under four heads:

*First.* They develop a science for each element of a man's work, which replaces the old rule-of-thumb method.

*Second.* They scientifically select and then train, teach, and develop the workman, whereas in the past he chose his own work and trained himself as best he could.

*Third.* They heartily coöperate with the men so as to insure all of the work being done in accordance with the principles of the science which has been developed.

*Fourth.* There is an almost equal division of the work between the management and the workmen. The management takes over all work for which they are better fitted than the workmen, while in the past almost all the work and the greater part of the responsibility were thrown upon the men.

Under these broad principles, Taylor developed the detailed scientific technique that has contributed so much toward increasing the skill of the worker, eliminating the waste of human effort, increasing production, lowering costs, and increasing wages. Personnel management now is justifying itself through the scientific approach to problems in human relations. It is distinctly an adjunct and a powerful aid to scientific management.

4. *Development of the scientific outlook.*—Robert Bruére, in his chapter on "Industrial Relations," appearing in "Scientific Management in American Industry," published by the Taylor Society, states that the whole range of personnel activities, including selection, assignment, training, health, safety, joint negotiations over work and pay standards, and all the rest, now widely used in American industry, also

evidence an application of scientific outlook to technical human problems.

Taylor's influence is to be seen in this whole development, since it meant an objective and measured approach to the application of human energy, precisely as much as his own original work required science in the application of mechanical energy. As every current study of personnel work in business has shown, the sweep of this humanizing influence has included literally hundreds of factories, stores, and offices, in which personnel work 'carries on,' and in which an increasing measure of group consent and creative participation is an integral part of the picture.

5. *Passing of one-man management.*—Profound changes in the organization structure of business and industry have been taking place since the World War. The characteristics of these changes are clearly indicated in the "Report of the Committee on Recent Economic Changes in the United States." In the chapter on "Management," Henry S. Dennison, president of the Dennison Manufacturing Company, indicates an evolution away from absolute one-man management. The mere increase in the number of departments and divisions of a straight-line organization has not been sufficient to meet the demands of modern complexity, since it has required of each of a large number of executives too wide a range of knowledge.

The tendency is for certain especially difficult and

important functions to be set aside, more and more, for the particular consideration of one man or a group of men who are expected, in one way or another, to guide, direct, or supplement the actions of line executives in these fields. It has been increasingly recognized that the conquest of a special problem requires not only the ability and will to win, but also the devotion of men who have sufficient time for its solution.

The trend of present-day organization, therefore, is in the direction of functionalization. In organizing along functional lines, of course, industry recognizes that selling, or accounting, or buying should be departmentalized with respect to the type of activity or function, rather than the type of goods to be handled, equipment to be used, or territory to be covered. These more obvious divisions of labor, however, have been so long recognized as essential, as to be considered normal line departments. The more fully functionalized type of organization has been experimented with for a number of years, but, until recently, its significant applications have not been many.

The Report indicates that today there is to be found a definite trend toward the development of such functional departments as "planning," "material control," "sales promotion," and, finally, "personnel," to name but a few. The whole tendency seems to be in the direction of more extended functionalization in the evolution of industrial organization.

6. *Two types of functional organization.*—From

the discussion of Mr. Dennison's analysis, it becomes evident that a functional department in a business organization may be one of two types. The first type is illustrated by the sales department, which has become directly responsible for carrying out the selling activity for the entire business. The second type is concerned with activities that are common to all departments of the organization, and that cannot be wholly segregated from their operations. Certain phases of such activities, however, may be assigned to a single special department to carry out for the entire organization. In other phases, this special department, in the performance of its duties, can function only through advice and assistance to the other departments.

It seems clear, from the above comments, that the personnel department is a functional department of the second type, and, with other such departments in an industrial organization, it presents a complexity of business problems that has made imperative the development of methods for coördinating the plans and the work of the functional heads with the responsibilities of the line executives. The complexity of modern business has forced the development of functions, because the burden on the operating executive became more than he could carry. Pressure of work prevented him from becoming a specialist on the many general problems that impinged upon his day-by-day operation. It is clear, then, that the main objective of a functional department, such as

the personnel department, is to give service to the line departments in all of those activities that are of a specialized character.

7. *Reasons for slow development of personnel departments.*—The slow growth and great variation in the evolution of personnel departments have been due to the varying attitudes of owners and chief executives of industrial enterprises. The lack of complete success, and the indefiniteness of status of many of the existing personnel departments parallel experience in the development of many other phases of scientific management. Summarizing a clear discussion of these difficulties presented by Dr. H. S. Person, managing director of the Taylor Society, in his chapter on "Leadership" in "Scientific Management in American Industry," it would seem that attempts to develop scientific management, in general, have been successful in direct proportion to the degree to which those who have initiated and directed their development have possessed genuine qualities of leadership, and that they have failed only where leadership was lacking to initiate and guide their development, particularly the order, rate, and extent of development.

One conspicuous weakness of leadership that he cites is the failure to realize that there is involved the problem of integrating radically different types of executives in an organization, whose mental attitudes and habits have originally been dominated and set by one particular type. Another weakness in con-

ventional leadership may be failure to recognize that the harmonizing of these types of executives involves the breaking down of well-established organization habits and the building up of new executive habits. Many executives are temperamentally resistant to change, and usually favor inherited methods, as opposed to new ones.

This condition leads to another prevalent weakness of leadership, which may be failure to realize that the development of a system of procedures is a problem of discovering and creating something new. Finally, there may be absence of appreciation that the development of scientific management is an educational process. Patience, persistence in the stimulation of common constructive effort in devising these new procedures, and, particularly, the gradual development of that understanding and sympathetic appreciation without which all else is impossible must be the results of truly educational processes.

8. *Place in the management program.*—It is clearly evident from the above statements of the fundamental principles of business organization, that personnel departments have performed and should perform a major function in management. They justify themselves in proportion to the character of the service rendered and the professional and scientific approach of the leaders in this functional field to the problems involved.

It is extremely difficult to portray clearly the func-

tions and responsibilities of a personnel department in conclusive form. The duties assigned to it by the chief executive vary throughout industry, from almost nothing to complete and comprehensive control over all personnel activities. The work of a personnel department, being a function, lies outside the field of direct productive operations. It should, then, be considered as a staff function, and not a line activity. In performing the staff functions imposed on the department, the personnel officer and his assistants give expert service to the line group, and relieve the busy operating executive of many detailed personnel responsibilities, thus leaving him free to devote his full time to his major objective of production.

It will aid clear thinking in the definition of the responsibilities of the personnel officer, if we realize that his function is considered to apply to the body of employees as individuals, and that his duties relate to supervisory as well as non-supervisory employees. As a practical matter, most successful personnel men probably devote the bulk of their time to working with supervisory employees, and very little, if any, to direct contacts with other employees. Employees of a large organization cannot be successfully treated as individuals unless the regular line of the supervision accepts responsibility for all routine, and most ordinary, contacts. If this practice is established and respected, it will prevent misunderstandings, conflict of authority, and any feeling on

the part of line executives and supervisors that the exercise of their responsibilities and authority is being impaired.

9. *Securing coördination.*—In the integration of functional organization, brief mention was made of the importance of coördination. The personnel officer, whose paramount function is to contribute to the development of an effective, team-playing organization, in the exercise of his control functions should set a high example in coördinating his work with that of others, that of line executives particularly, in the spirit of complete coöperation. New projects issuing from his functional responsibility should be put into effect only after the educational processes of consultation, conference, and concurrence, which bring conviction to all concerned, have been successfully completed, resulting in hearty and loyal support of the projects.

Committee meetings with executives of the departments involved, with a carefully prepared conference program and procedure, are perhaps the best method of achieving the desired result. These meetings are supplemented, before and after, by the closest and most frequent personal contacts practicable between the members and the personnel officers.

It is not altogether easy to define the status of the personnel officer and his department. It seems clear that he can be considered as an operating executive only in his exercise of authority over the members of his own department. As a functional head, he

may have a large measure of control over the administration of the personnel activities in their effect on all members of the organization.

Some of the problems within the purview of his responsibilities he will handle on a purely staff basis, assembling the facts, drawing conclusions, and making suggestions to his operating associates, or recommendations to his superior for necessary action. Where responsibility for decision rests upon that superior, the action taken becomes the superior's action. The degree of functional control possessed by the personnel officer, and the portion of his work that is purely staff, will depend upon the definition of his duties, responsibilities, and authority given to him and announced by the chief executive.

If the assignment of his functions and responsibilities is indefinite, and even somewhat ephemeral, as, unfortunately, it sometimes is, the personnel officer will be justified in assuming established practices of good personnel work in other industries as the basis for the development of his job. Lack of a clear definition of his duties from his superior, of course, makes his work harder, but it is a challenge to him to develop each project on such sound premises that it commands the respect of his superior and other executives and induces conviction in them, leading to its adoption. Incidentally, the absence of a concrete assignment of responsibilities in the early stages of the existence of a personnel department may result ultimately in a broader field of responsibilities than

would have been the case if specific duties had been assigned at the outset.

10. *Importance of reaction of the workers.*—As personnel activities apply to the members of the organization as individuals, and as each individual is vitally interested in their operation, it is not sufficient for the personnel officer to receive concurrence and support for his projects solely from the executive group. In view of the fact that most personnel projects are evolved and put into operation as service to the members of the general forces, surely their feeling and attitude toward the functioning of any given personnel problem should be sought before the solution is fully determined.

Personnel work costs money; and, in the consideration of the adoption of personnel undertakings, there has frequently been the criticism from the workers, unthinking perhaps, that they can well take care of themselves, and would prefer to have the cost of these undertakings appear in their pay envelopes as increased wages. Much of this superficial general criticism has disappeared with an appreciation of the high value of personnel services to the individual.

Concerning each specific project, however, there should be every reason for consultation with representatives of the general forces to test the value of the service proposed and to receive suggestions as to the manner of its rendering. The viewpoint of the representatives of those most vitally interested

will greatly aid the personnel manager, first, in determining the valuation placed on the service by its recipients, and, second, in receiving valuable suggestions concerning plans for procedure and the technique of successful operation of the projects.

Little mention need be made of the values which come out of such consultation, in the appreciation, by the workers, of their participation in, and contribution to, the solution of the problem. In this way, they make the plan theirs, and its success is assured. Should the machinery of employee representation be available, the presentation of personnel problems to the joint conference committee would be the logical procedure. This is the best possible manner of presenting these problems to the workers for a full and free expression of criticism and constructive suggestion.

11. *Operation of the personnel department.*—Following these general observations on the functions of the personnel department and its place in the organization structure of management, it might be well to discuss in some detail the manner of performance of these functions within the personnel department. The great variation in the assignment of functions to the personnel department, and the measure of responsibility in the performance of these functions have already been mentioned.

It is impossible to give a clear view of all of the variations of function and responsibility in the hundreds of industrial organizations carrying on person-

nel work. The subject may be discussed by selecting two types that, while not the extremes, will illustrate the viewpoint of management in its conception of the proper administration and control of personnel functions.

12. *The decentralized plan.*—The interrelated responsibilities between the personnel department and the operating departments, where there is a large measure of decentralized responsibility for personnel functions, are shown in Figure 3. In the convergent responsibility for employment it will be seen that the major responsibility for this function rests with the operating departments concerned. The plan means that there is no centralized office for employment, each operating department being responsible for hiring and discharging its workers. An arrangement of this kind reflects the traditional inborn prejudice of the supervisor against the idea that any man but himself can employ men to work for him. He claims that he is responsible for production, and that only he can judge the qualifications of men suited to do his kind of work.

The primitive method of having the guard at the gate send the applicants waiting there to the bosses to be hired or rejected is fast disappearing, of course, as an employment procedure, and the tendency is toward centralized employment within each department. With the responsibility for employment placed upon the operating departments, the personnel department head has hardly more than an advisory

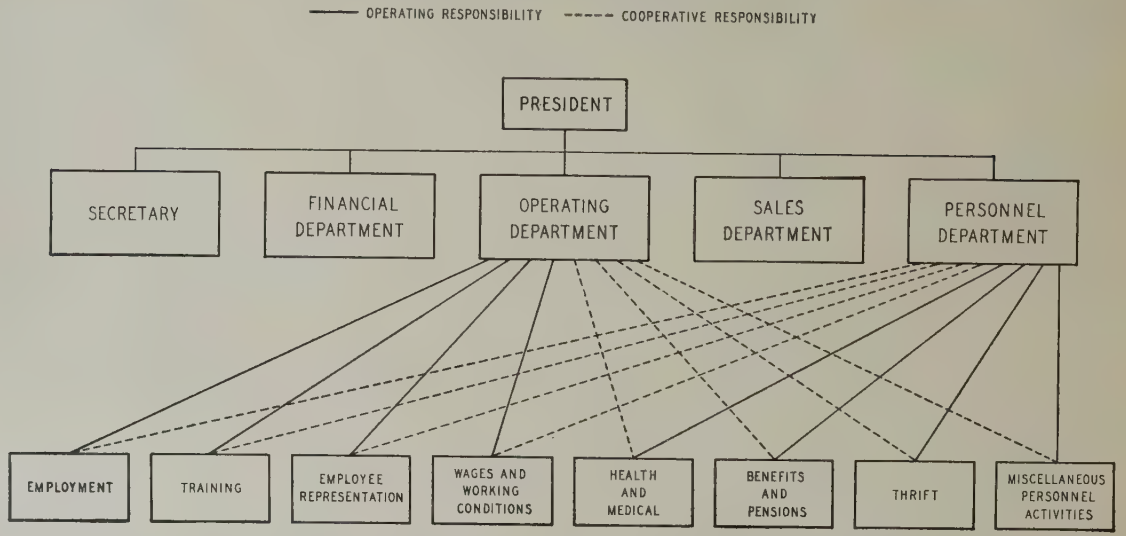


FIGURE 3—INTERRELATED RESPONSIBILITIES BETWEEN THE PERSONNEL DEPARTMENT AND THE OPERATING DEPARTMENT UNDER THE DECENTRALIZED PLAN OF PERSONNEL ADMINISTRATION.

function in his relationship to the employment problem. He may aid the operating departments by making studies of general employment conditions, and may also be helpful in recommending sources that might be developed to meet the demands. He should also contribute to the consideration of all general employment policies.

13. *Employee training under the decentralized plan.*—In the scheme of decentralized responsibility, the subject of training, perhaps even more definitely than that of employment, is considered a major responsibility of the operating departments, and it is quite generally the consensus of opinion that there is where it belongs. Legitimate exceptions to this arrangement will receive comment when consideration is given, later, to the more highly centralized scheme of personnel responsibility. Training is a function of command, and line executives cannot be relieved of this responsibility. Recognizing this situation, however, personnel departments can be very helpful to the line and staff of operating departments by assembling and preparing training material, developing instruction methods, studying successful experiences of other business organizations in the field of training, and making all of this information available. As a major staff executive, the personnel officer will contribute toward the development of wise training policies.

Employee representation is indicated on the chart as a specific responsibility of the operating depart-

ments. This activity is so closely tied in with the productive life of the worker, that the operation of the plan must necessarily be under the control of line executives. It is quite logical, even in this scheme of decentralization, that the responsibility for the inception of the plan, the policies governing it, and the operating procedures to carry it into effect should have been developed by the personnel department. For this reason, the personnel manager, under this plan, would have quite definite staff or coöperative responsibility.

14. *Wages and working conditions.*—It is difficult to conceive of a situation that would relieve the operating executives of the major responsibility in all matters pertaining to wages and working conditions. One of the largest factors in the cost of production is wages. Wage policies can be determined only by deliberation and action of the major executives of the organization, with final decision by the chief executive. As a major executive, the personnel officer will contribute to the development of wage policies, and he can cause studies to be made of wages prevailing in the community, as a basis of comparison for wage schedules in effect, or in making changes that are under consideration in the wage rate. It would seem distinctly within his function to make recommendations concerning working conditions as they might affect the well-being of the worker.

As to the service functions—health and medical attention, benefits and pensions, and thrift—there

can be no question that the major responsibility belongs to the personnel department. The reason for this arrangement is that these activities are separated from the operating phases of the business. The operating executives undoubtedly welcome relief from responsibility for the successful administration of these activities. These functions impose a large measure of responsibility upon the personnel department, as most of the administrative work involved rests upon the members comprising the staff of this department.

For the successful installation and operation of these services, however, full support and a high degree of coöperation must come from the operating officials down through the levels to the first-line supervision. The same degree of responsibility devolves upon the personnel department for the proper functioning of all those minor phases of personnel work that were briefly described in the chapter on miscellaneous personnel activities.

In concluding this brief discussion of the functions of the personnel department under the plan of decentralized responsibility, it might be noted that this particular type of organization set-up may be, for some industrial organizations, a step in the evolution toward more comprehensive control of all phases of personnel work. The conditions that surround many industries, however, may make this form of responsibility and control the most appropriate permanent form of control over these services. This conditon

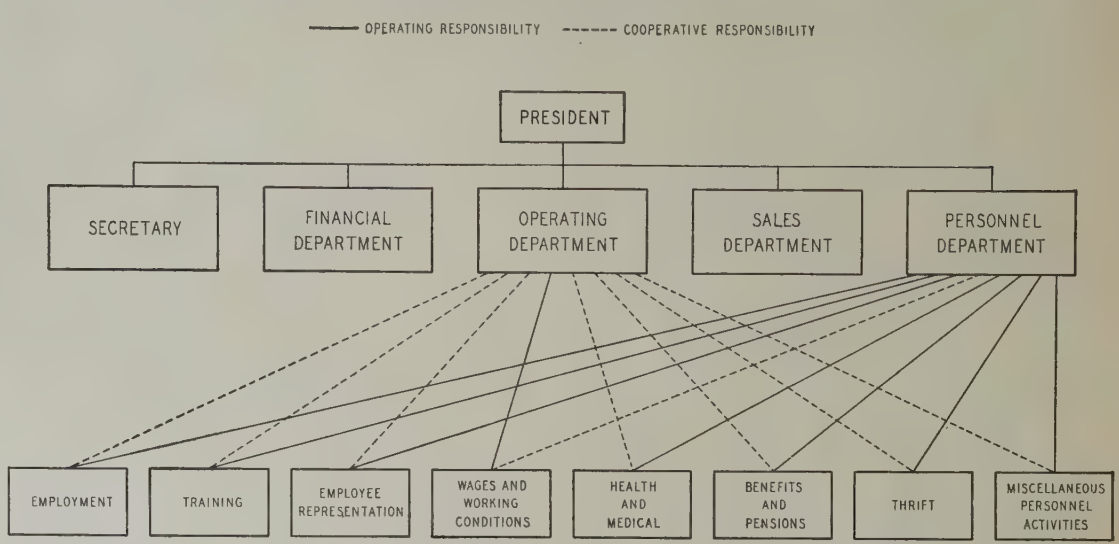


FIGURE 4—ORGANIZATION PLAN PLACING THE RESPONSIBILITY FOR PERSONNEL ADMINISTRATION IN A PERSONNEL DEPARTMENT.

is likely to be particularly true under conditions of physical decentralization of operations.

15. *The centralized plan.*—We now come to the consideration of a type of organization that places a much higher degree of centralized responsibility for personnel activities upon the personnel department. This form of organization functions more successfully in companies having centralized operations, such as a manufacturing plant whose facilities and equipment are, figuratively speaking, under one roof. The manner in which this type of organization differs from the former is shown in Figure 4.

Under this plan, employment becomes a major responsibility of the personnel officer. Within his department would be organized a centralized employment division charged with operating responsibility for the employment and placement of all classes of employees, for all departments of the organization. There are, of course, patent advantages in this situation, as it permits of a centralized development of sources, a continuing study of employment conditions in the community, and a wider range of possibility in the placement of the individual applicant in the several departments of the company. It permits a refinement of selection procedures and, all in all, tends to place employment on a more scientific basis.

No centralized employment procedure should be so rigid in its operation as to impose a newly employed person upon any supervisor against the supervisor's will. Final acceptance of the employee

carefully selected by the employment division should rest upon the supervisor for whom it is proposed the individual will work. This requirement calls for a high degree of coöperation and confidence between the members of the employment division and the operating executives.

16. *Training under the centralized plan.*—Where it seems good policy to have formal training in classes for groups of men, it is common policy, in many industries, to centralize this class of training and to place upon the personnel officer the responsibility for its administration. This plan has all the advantages and economies of centralized procedure, and permits the development of specialists in training and education.

One of the most usual classes of training for which the personnel department assumes responsibility is the training of newly employed unskilled workers. The intensive methods used cut down the time required to prepare the new worker for efficient production. The supervisor is relieved of the burden of training the recruit on the job, and he is provided at the start with a fully productive worker. His training problem then becomes one of development in upgrading his workers to higher degrees of skill.

The facilities of the training division might also be used for training older employees in new skills. There are many other fields in which the training division functions, which will be described in more detail when the duties of the members of the personnel

department are discussed. Even under a centralized training procedure, close coöperation and active assistance will always come from the operating departments, which are interested directly in the personnel developed by this formal training effort.

17. *Employee representation.*—Under this more centralized plan, while the direct operation is still with the line, the relation of the personnel department to the administration of employee representation would be extended to a measure of control that would insure the continued and progressive development of the plan. Continued study should be devoted to improving methods of operations and procedures, and an analysis of results should be made to check the accomplishments of the joint conference committees, to keep them in balance.

It will be noted that no change has been made in the status of the subject of wages and working conditions, where the major responsibility remains with the operating executives. In both the plan of decentralized responsibility for personnel functions, shown in Figure 3, and the plan of more highly centralized responsibility, illustrated in Figure 4, the major responsibility for the personnel services—health and medical attention, benefits and pensions, and thrift—rests with the personnel department.

## REVIEW

Outline the steps marking the growth of the personnel management movement.

State the four underlying principles of management.

Explain the reason for the slow development of the personnel department as a part of the business organization.

Outline the functions and duties of the personnel officer.

Why is it important to find out the reactions of the workers to personnel activities?

Explain the type of control the personnel manager would have over employment, training, and employee representation under the decentralized plan of control.

Discuss the advantages of the centralized plan of control from the standpoints of employment and training.

Describe briefly the functions, organization, and activities of the personnel department connected with your own or some other company.

# CHAPTER XV

## ORGANIZATION OF THE PERSONNEL DEPARTMENT

1. *Variations between personnel departments.*— Personnel departments vary in size, organization, and function, according to the idea that the chief executive of the organization has of the problem as a whole and the expense he is willing to authorize. These departments are governed more specifically by the size of the company. To emphasize the importance of the latter factor, it will be interesting to examine a brief tabulation of the ratio of the number of wage earners to the number of industrial establishments, given in the table below and based on the last available United States census (1920).

RATIO OF THE NUMBER OF WAGE EARNERS TO THE NUMBER OF INDUSTRIAL ESTABLISHMENTS

| Classes by Number of Wage Earners | Establishments, Per Cent | Workers, Per Cent |
|---|---|---|
| 1 to 5 | 56.2 | 3.3 |
| 6 to 20 | 22.2 | 6.8 |
| 21 to 50 | 10.0 | 8.9 |
| 51 to 100 | 4.0 | 9.6 |
| 101 to 250 | 3.9 | 17.3 |
| 251 to 500 | 1.4 | 13.7 |
| 501 to 1,000 | 0.6 | 13.2 |
| Over 1,000 | 0.4 | 26.2 |

Of course, through growth and merger, the census of 1930 undoubtedly shows a great increase in the

number of large industries employing a thousand or more wage earners. Nevertheless, while the proportions change, there will be the same number of classes in relation to size. The organization that will be described will pertain to the largest industries of stable character, with the assumption that adaptations of this rather elaborate plan will be made, suitable to the decreasing size of industries in the other classes.

2. *Personnel department organization.*—With this caution in mind, let us examine in detail the organization of a personnel department, as shown in condensed form in Figure 5. It will be seen that under the personnel officer there are five major divisions of organization, accomplishing a breakdown or division of labor, in each of which the personnel is working toward a clear-cut, logical, major objective. The activities of the several sections under each division are closely interrelated, and, particularly under employment, education and training follow a definite time sequence in the work experience of the individual employee. This logical division of responsibilities, it will be seen, follows closely the development of the personnel problem discussed in Chapters I to XIII.

3. *The personnel manager.*—In Figure 5, the head of the personnel department is called the personnel manager. The numerous different titles that he receives in industrial organizations indicate the varying conceptions of the measure of his responsibility,

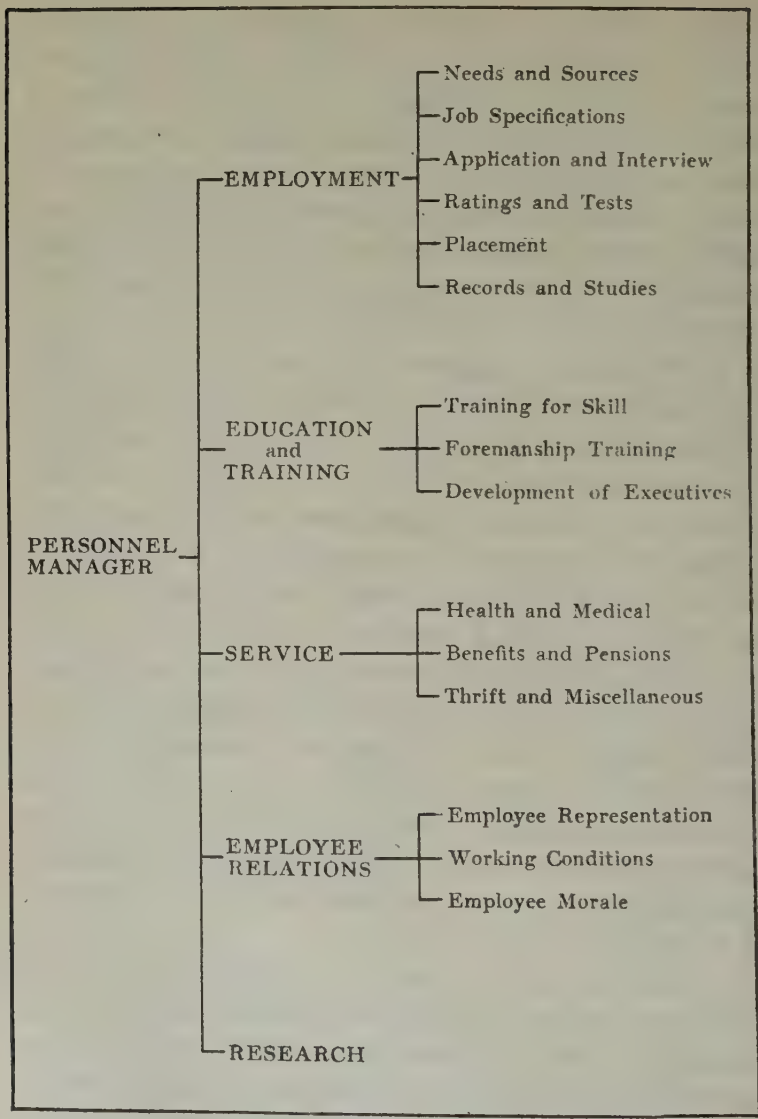


FIGURE 5—TYPICAL ORGANIZATION OF A PERSONNEL DEPARTMENT.

and sometimes the indefiniteness of his status. A few of these titles are: vice-president in charge of personnel, assistant to the president, assistant to the operating vice-president or general manager, officer in charge of industrial relations, and employment manager. In an increasing number of organizations, a definite recognition is made of the personnel manager as an executive of major rank, by designating him a vice-president reporting directly to the president and coördinate in responsibility and authority with the operating and other staff major executives. If the major executives reporting to the president carry the title of vice-president, this is the appropriate title for the personnel officer. If, however, the major executives carry such titles as general manager, comptroller, general sales manager, and so on, an appropriate title for the personnel officer is personnel manager or personnel director. The title, after all, is not so important, provided it is understood in the organization that he is an officer of major executive responsibility.

The personnel officer, by whatever title known, must be possessed of high qualifications for the difficult position of responsibility that he holds. He must have enthusiasm for his work, based on absolute conviction of the worthwhileness of the problems in human relations with which he has to deal. The position demands qualities of leadership of the highest order. A broad background of experience in industry is a valuable asset, and operating work within

his own organization increases its value immensely.

Sympathetic understanding of human nature he must have. Organizing ability is essential, not only for the economical and effective organization of his own department, but for a keen appreciation of the place of his organization as part of the whole and his relationship to all its parts. Because of interrelating responsibilities in the carrying on of all personnel work, he must approach all of his problems in a spirit of highest coöperation completely to coordinate his work with that of others. He should be a skillful conference leader, because policies, procedures, and methods of operation usually are determined upon through committees made up of the representatives of management and workers concerned. He should be fundamentally grounded in all the problems his department has to face, to control and direct his subordinates in the exercise of their responsibilities.

4. *Qualifications of division heads.*—The heads of the divisions within the personnel department should have, in general, many of the qualifications that are demanded of their superior. Also they must be well versed in their specific responsibilities, and capable of a constructive approach to each one of their problems. In other words, in the solution of their problems, they must use the scientific method of fact finding, analysis, synthesis, and conclusion. These requirements are specially important in the fields of employment, education and training, and research.

The fundamentals of all personnel work lie in the solution of social problems. Each division head, therefore, should be a student of the social sciences, and particularly he must be sound in the application of the principles of psychology. The scientific approach to all problems of selection demands the application of psychological principles and methods to job analysis, tests, and interviews. Records should be prepared so that they can be handled on a statistical basis, and members of the employment division should have good knowledge of statistical methods.

5. *The division of education.*—If the personnel department has a division of education and training, the head of this division and his staff, first of all, must be good teachers, thoroughly grounded in the learning process. Training for skill demands a comprehensive vocational background. An acute appreciation of the fundamentals that come out of job analysis, and the ability to develop projects, will further, to the utmost, the teaching of the proper skills.

As pointed out in the previous discussion on foremanship and the training and development of executives, the members of the staff in charge of this work—to teach or to provide instruction material competently—should have had experience in foremanship, and those who have the responsibility for guiding the educational process in the development of executives should have had executive experience.

The ideal background for members of this division is possessed, probably, by men with former teaching experience and a period of actual service in industry.

6. *The service and employee relations division.*—The service division requires men of high administrative ability. It is in this field that the personnel department assumes more actual operating responsibility than in any of the other divisions. In health and medical activities, of course, the service is rendered by medical officers, but the administrative work of this service might well rest with a non-medical man, preferably a man with a background of plant operating experience. Those in charge of benefits, pensions, and thrift should have, in addition to a knowledge of their administrative responsibilities, a keen appreciation of the actuarial phases of their problems.

The head of the employee relations division, perhaps more than any other man in the department, must have a keen sense of the interplay between human forces, and the ability to recommend action that will adjust human relationships and promote the general well-being of the members of the whole organization. This quality will contribute much to the development of wise procedures and toward inspiring a high degree of coöperation from the line members of the organization.

7. *Importance of a research division.*—The establishment of a research division in the personnel department is perhaps a new conception in organ-

ization. Scientific research in its application to physical things now occupies a high place in industrial organization, but the necessity for scientific research in the field of human behavior and human relationships is only beginning to be appreciated. The time is not yet ripe for an extensive application of psychological methods, and an elaborate organization for personnel research is not to be recommended at present.

Many problems in personnel, however, demand research before solution, and the studies should not be neglected. This situation exists in connection with the work of all divisions of the personnel department. It would be well to have as head of the research division a coördinator who would organize all activities in this field. His qualifications, of necessity, would be broad vision to determine appropriate fields for research and ability to place proper valuation on projects proposed. He should be versed in scientific methods, and should be thoroughly grounded in the social sciences, particularly in the field of applied psychology. He should have a research committee made up of representatives of the other divisions, and the research projects proposed and found worth while could be allocated for detailed development to the division most concerned.

8. *Titles of division heads.*—In considering the appropriate titles for the heads of these several divisions of the personnel department, the following suggestions may be helpful. The employment di-

vision would have an employment manager, the education and training division an educational director, the service division a service director, the employee relations division a director of employee relations, and the research division a director of research. This terminology is sufficiently descriptive of the functions performed, and some of these titles are in customary use. It will be convenient, also, to use the titles in the discussion following on the duties of the personnel department.

## REVIEW

What factors should govern the size, organization, and function of a personnel department in a business?

Outline the status and qualifications of the personnel manager.

List the divisions into which the personnel department may be subdivided and explain the general responsibilities of the division heads.

State the ideal background for members of the educational division.

Discuss the duties and qualifications of the head of the employee relations division.

Outline the organization of the personnel research committee.

# CHAPTER XVI

## DUTIES OF THE PERSONNEL DEPARTMENT—INVESTIGATING EMPLOYMENT SOURCES

1. *Supplying the working force.*—In the first chapters of this text, the fundamental aspects of the problems with which the personnel department has to deal were developed. A minimum of reference was made to the manner of administering these activities—sufficient only to bring out clearly the nature of each problem. We now come to the development of the duties of the members of the personnel department in the exercise of their responsibilities. In the following discussion of the proper functioning of the personnel department in its attack on the problems earlier discussed, the emphasis is put on the manner of execution and of fixing the responsibility of performance.

The employment manager is responsible at all times for supplying workers in number and quality to fill requirements. These demands come to him in the routine form of requisitions for labor, from the operating and other departments. A requisition will show the number of men or women required, the positions to be filled, desirable qualifications, the starting rate of pay, and whether the employment is temporary or permanent. Requisitions, coming

from all departments daily, measure the total needs that must be filled promptly by the employment division.

2. *The needs for the general forces.*—The employment manager, through his own studies of turnover, flow of promotion, and growth, must make advance estimates of these continual demands and have the sources developed to meet them. To control needs, he should do everything in his power to contribute to the regularization of employment, and avoid heavy labor turnover, excessive seasonal layoffs and sudden increases of the force. He can accomplish this task through coöperation with the planning department on future production schedules, and by keeping closely in touch with budget estimates. He should forecast labor requirements far enough in advance to arrange for gradual increases or gradual reductions in force when such changes are necessary.

3. *The problem of technological unemployment.*—The modern tendency to replace the worker with the machine is bringing about what is known as "technological unemployment." It is imperative for the employment manager to keep himself fully informed on the development of new processes and the installation of new machines that will cause a reduction in the number of skilled workers required. He should be informed of proposed installations of labor-saving devices sufficiently in advance to adopt, with the coöperation of the line executives, con-

structive procedures for meeting the situation and reducing the hardship that may come to the workers through sudden layoff or discharge. One method to follow is to permit a reduction in the number of employees in the department affected, by ceasing to furnish replacements for normal separations, or by filling vacancies temporarily, and fully informing employees that their positions are temporary. Another method of insuring continuous employment of workers replaced by labor-saving machinery is to turn them over to the training division for retraining in new skills, and assignment to different work within the organization. It should he realized that the workers displaced by machines are valuable reserves for transfer to other departments to meet the demands of the organization as a whole.

4. *The problem of labor turnover.*—In connection with the determination of needs, the employment manager should have studies of labor turnover made continually. There are a number of formulae for the computation of labor turnover, some of them quite complicated. The simple formula that has general acceptance computes turnover as equal to the total number of separations divided by the average number of workers on the payroll. This rate may be calculated for any given period, say, from a week to a year. A detailed study of turnover would call for a breakdown on the basis of reasons for separation, such as resignations, discharges, layoffs, etc. Because of the high cost of labor turn-

over, the employment manager should study every cause of separation, and give all possible assistance to line executives and supervisors in their efforts to reduce it. Research in this field by the personnel department should contribute much to the reduction of costs and the elimination of waste in human effort. To the knowledge of the writer, there has never been any general agreement as to what constitutes normal turnover, or the minimum that it would be desirable to realize. It is safe to state, however, that few industries are satisfied with their rate of turnover, or would not welcome further reduction in the number of separations from their organizations. Here is a challenge to the employment manager to contribute his utmost to that desired end.

5. *Sources of general supply.*—With all improvement that can be made in the reduction of turnover and the stabilization of the force, however, there will continue to be an ever-present need for recruiting new workers. Except in times of business depression, requisitions for employment will flow continuously from the operating departments to the employment division. On the basis of these insistent needs, the employment manager must develop the sources to supply them. A review of these sources was given in Chapter III. The energy which the employment manager and his staff must apply to the development of adequate labor sources will depend upon employment conditions in the community in which the company is located. It may be that conditions at times

will warrant dependence on voluntary applicants to fill his demand. But even at such times, and likewise continuously, he should insure that other sources are receptive to his demands. It will be recalled that the most dependable sources are friends of employees, former employees, and the output of schools in the community.

6. *Employees as aids.*—The employment division should take measures to stimulate the interest of employees in bringing to the attention of the employment manager high quality applicants from among their friends. It is distinctly the duty of the employment manager to set up a file of former employees, and to maintain contact with them, so that in time of need he may invite the efficient ones to return.

7. *Educational institutions as sources.*—The public schools—general, technical, and commercial—are the largest and most dependable sources for workers of high quality. Representatives of the employment division should develop friendly relations with the faculties of schools in the community, giving them full and complete information concerning the company.

Representative members of the faculties should know of the product or service, organization policy, and spirit of the company, and particularly the opportunities available for young men and women beginning their life work. Members of the organization should be ready and willing to talk before student bodies on general subjects concerning in-

dustry as a whole, and, if it is requested, on specific opportunities within their own organization.

Invitations to faculties and students to visit the plant and gain more detailed information of the operations of the company are effective means of arousing interest. Contacts of this nature with schools are today welcome to teachers and students because of the great increase of attention given to the problem of vocational guidance. The employment manager in this way is making a concrete educational contribution. His coöperation raises the prestige of his company with teachers and students, and enables them to learn where real opportunities are available. The creation of these good impressions and the heightened prestige of the company throughout the community will tend to increase the number of good voluntary applicants. Intimate contact with all schools, by developing cordial relations, will open channels for recruiting from those institutions where complete records of student accomplishments are available, as measures of interest, quality, and capacity.

8. *Employment agencies and advertisements.*— The employment manager would, of course, maintain contact with the best of the employment agencies in the community, as a source to fall back upon in time of need. Mention has already been made of the weakness of this source in securing personnel of high quality, except during periods of depression.

In times of great pressure, when numbers of new

employees are needed, a member of the employment division would scan daily the "Situations Wanted" columns of the newspapers for possible candidates of acceptable quality. As a last resort, advertisements for labor may be inserted in the newspapers of the community. This source of labor supply is not always dependable.

9. *Needs for executive positions.*—Later consideration of the duties of the personnel department relates to the problems of progress and promotion, but it is true, that, after all, in building up the supervisory and executive group, promotion is an employment problem. In organizations that have centralized personnel departments, the personnel manager and the employment manager will have a measure of control, or at least a large influence, over the promotion policy. This function might be considered a coöperating responsibility. It will be remembered that, in the chapter on "Needs and Sources," it was stated that the main source for supplying the needs for leadership was the personnel of the existing organization. This is the restricted source from which selections are made for supervisory and executive positions. That the source may be adequate, careful attention must be paid to future demands on it, and to its upbuilding and replenishment in view of those demands.

Let us summarize, in the light of the duties of the employment manager, the method for forecasting needs in leadership positions:

(a) Selection of a group of key positions for which forecast should be made
(b) Determination of period for which forecast should be made, governed by:
    (1) Length of time necessary to develop men for such positions
    (2) Length of time for which reasonable accuracy in forecast is possible
(c) Determination of requirements in these positions for the selected period, including:
    (1) Provision for growth
    (2) Provision for losses in these positions
(d) Inventory of potential material already in the organization, with which to meet these requirements, based on a method insuring maximum accuracy and consistency of judgment, by providing for:
    (1) Thorough consideration of the requirements of the future job
    (2) Objective appraisal of the men, on the basis of actual performance in duties leading up to the future job
(e) Determination of resulting net supply, by allowance for losses before this material is actually ready for these positions
(f) Balancing of this demand and supply, and determination of number of men needed annually to maintain a suitable reservoir of potential material, including:
    (1) Number to be developed from the ranks
    (2) Number to be employed from the colleges

10. *Sources of executive material.*—As stated in Chapter III, experience in industry has shown that it is impossible to develop from the ranks of the organization all the leadership material required to man this important superstructure. A small portion

of this additional need will be supplied through the employment of executives who have gained their experience in other organizations. Perhaps the main duty of the employment manager, in this respect, would be to keep the employment of outside executives down to the minimum, and to emphasize the qualifications of existing members of the organization for the positions vacant.

The final sources for the selection of men of potential leadership ability are the colleges and universities of the country. It is the responsibility of the employment manager to set up a procedure that will insure to his company its share of this high quality output. The demand for college men, of course, would vary from three or four in a small company, to several hundred a year for large industrial organizations. The importance of developing this source, however, varies only in a quantitative degree.

11. *Contacts with the colleges.*—As with secondary schools, it is important that relations with colleges should be conducted in such a way that the interests of both sides be properly considered. For a company with small demands, it might be well for the employment manager to select a small number of institutions within convenient distance for the development of cordial relations, but, where the demands of an organization are larger, it may be necessary for the employment manager to develop these relations with all the major institutions of the country.

If the demand for the employment of college graduates is large, requiring visits to a number of institutions, it would probably be impossible for the employment manager himself to visit all the colleges necessary to fill his demand. He would, therefore, select, or have the personnel manager assign to him for this period a number of members of the organization sufficient to cover the work required within reasonable time limits. It would be his responsibility to train the members of this group in the technique of interviewing and selection. The employment manager himself would make definite arrangements with the colleges as to the time for the visit of his representative to the campus for the purpose of interviewing seniors who are prospective graduates. The most usual time for recruiting visits is during the first half of the second semester of the senior year. The employment manager should secure information in advance, which will be helpful to his representatives in determining the qualifications of each possible prospect for employment. This information would be of a character which the student himself could not furnish, such as scholarship and other ratings, which might be a part of the procedure in student development. With relations cordially developed, he can receive from the faculty valuable estimates of the personal qualities of the students, and probably, some indications of their interests and objectives in life. Where the number of seniors to be interviewed is large, it may be worth while for him

to send a younger member of his organization to the institution before the arrival of the employing representative, to gather the information noted above, make personal contacts with the students, directly or through the college personnel officer, and arrange a schedule of interviews which will conserve the time of the visiting representative.

Most of the industrial recruiting work in the past has been conducted through the coöperation of deans and department heads. In the last few years, more and more institutions have appointed personnel and placement officers, whose assistance in providing information and in making arrangements for interviews is of great value. For clarity of presentation, the procedure of the representative on the campus will be carried to a brief conclusion here, although, in some phases, it may anticipate the fuller discussion of selection in its more general application to the full employment problem.

12. *Interviewing the prospects.*—With preliminary information gathered and the interviewing schedule arranged, the employment representative begins his interviewing of prospective graduates. Naturally, the representative will desire to interview all students scheduled, before deciding which members of the group are worthy of an offer of employment. A second interview with those selected would follow this decision. The purpose of the first interview logically would be to get information relative to ability and fitness of the student for work

in the representative's company; in other words, to determine, tentatively, whether or not it is desirable to make him an offer of employment in the company, and where he would probably best fit into the organization.

During the first interview, it is not necessary to take the time to interest the student in any particular type of work, but an effort should be made to give him a good general picture of the work within the company as a whole. It is important to remember these points: to make a friend; to get all the information possible; and to give what information is asked for, in a truthful and conservative manner. Judgment should be based on:

(a) Indications of stability of character
(b) Indications of adaptability to the spirit and aims of the representative's business
(c) Evidence of past performance, in business, in scholarship, and in leadership or participation in college affairs
(d) Indications of clearness of aims, self-understanding, and tenacity of purpose
(e) Indications of personal fitness

Each student interviewed should be rated by the representative, and the ratings recorded on the interview record as soon after the interview as is convenient. A scale that has been found useful might be suggested, as follows:

For men of high qualifications:
A1 for outstanding men of whom much may be expected

A2 for very good men who show promise of substantial development

For men of average qualifications:

B1 for acceptable candidates

B2 for the border-line candidates to whom an immediate offer may be made because of some special ability, but who have definite limitations of one sort or another

For men below standards of acceptability:

C1 for men below normal standard of ability

C2 for men unacceptable because of personal or character traits

These ratings, recorded immediately after the interview, give the employer's representative a just basis for comparing the ability, capacity, and fitness of the students interviewed.

On the basis of the judgment expressed in the ratings of students, the employment representative will come to a decision on those who seem desirable candidates for positions in his company. He makes appointments for the second interview to check his judgment on the preliminary interview and to discuss in more detail the interests of the student and his fitness for his future work. This second interview also provides opportunity for giving the student more detailed information concerning the business, its personnel policy, starting rate if not already given, and opportunities for progress and advancement. At the conclusion of the second interview, a definite offer of employment is usually made, or instead of making a definite offer, some companies convey to the student their willingness to consider an

application for employment, and await his making one. The company's acceptance of his application would then close the employment procedure.

In justice to the student, it is quite inappropriate to call for an immediate decision on the offer made to him. He should have opportunity to interview representatives of other industries and decide for himself wherein his deepest interests lie. This method should not stop the employment representative from following up his offer with letters expressing continued interest in the candidate and enclosing literature giving more detailed information of the character of the company's business and the opportunities it offers the student. Acceptance of an offer should be followed immediately by a letter welcoming him into the organization, and giving him definite instruction as to where, to whom, and at what time he is to report for duty.

13. *The relation of college ability to business success.*—In setting up standards for the selection of college graduates, research into the value of various types of college achievement as indices of future success in an industry should be useful.

As an illustration of the value of this sort of research in the field of personnel, one large American industry undertook to test the values of some of the factors used as the basis for the selection of college graduates. Three of the factors that are always given weight are; scholarship; campus achievement or extra-curricular activities; and the

degree of earning of college expenses by the student where this has been necessary.

The scholarship of employees of this organization, who had graduated from college over a period of thirty years, was secured from their institutions. On the basis of scholarship record, they were divided into four groups: namely, those who, when in college, were in the first tenth in scholarship; those in the remainder of the first third; those in the middle third; and, finally, those ranking in the last third in scholarship. Similar information was secured for participation in extra-curricular activities, and the members were classified into three groups according to this type of campus achievement: those with substantial achievement; those with some achievement; and those with no achievement. In the study of college expenses, the groups included those earning over two-thirds of their expenses, those earning one-third to two-thirds, those earning an appreciable amount but less than one-third, and those earning no part of their college expenses.

14. *Analysis of the data regarding college ability.* —The study sought to determine what influence these factors of college experience might have on the future success of the student in this industry. Their progress was plotted on the basis of salary, in relation to the number of years since graduation. After the median progress of the whole group was determined, it was found that the median of the first-tenth men in scholarship stood 20 per cent higher at fifteen

years out of college, and 40 per cent higher at twenty-five years out. The median of those with substantial campus achievement stood 20 per cent higher than the general median twenty-five years out of college. The study of earnings proved them to be a neutral factor, as the amount earned by the student seemed to have no effect on his future progress.

The influence of these factors in their effect on salary progress is shown graphically in Figure 6, and sound information on the influence of age at graduation and of time of decision on the part of the graduate as to his permanent life work is also given. This study shows definitely that good scholarship is a favorable factor, and that campus achievement is also favorable but not in as high a degree as scholarship. Early age at graduation was found to be a favorable element. It seems very evident, too, that early decision on the part of graduates as to their permanent life work is distinctly advantageous to them.

This study offers quite conclusive objective evidence of the predictive value of scholarship and campus achievement. But it is clear that there are other elements, probably many of them, which, combined in the complex of human nature, spell success or failure in life. This fact is shown in Figure 6, where, out of men in the first scholarship tenth, 18 per cent failed to make even average progress, while, at the other extreme, 22 per cent of those who stood in the last third in scholarship were in the highest

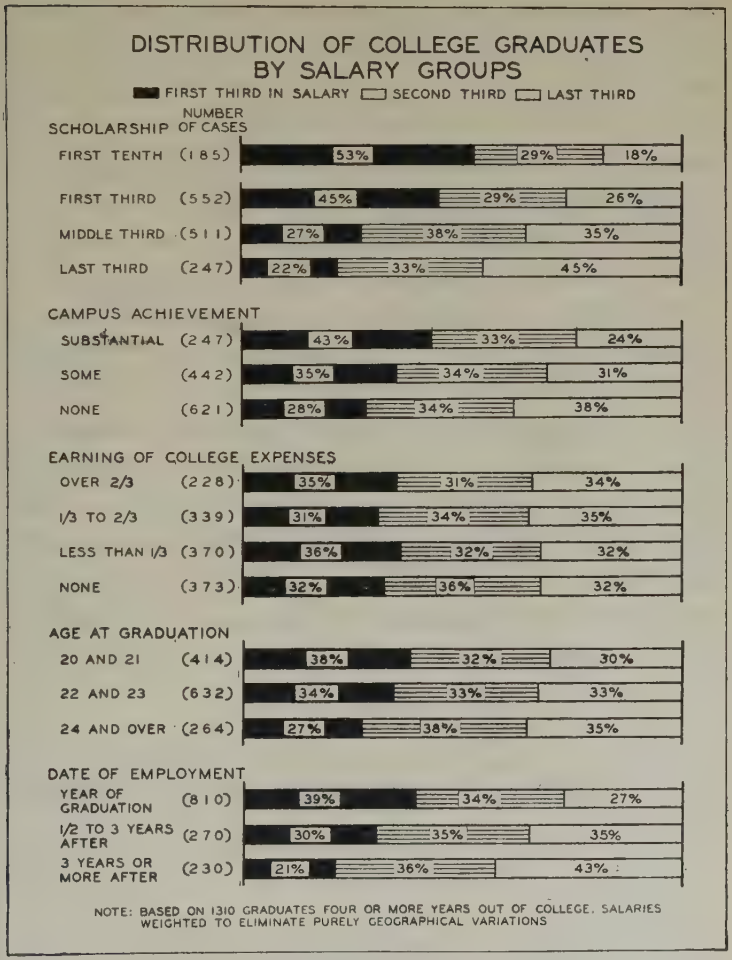
DISTRIBUTION OF COLLEGE GRADUATES
BY SALARY GROUPS
FIRST THIRD IN SALARY
SECOND THIRD
LAST THIRD
NUMBER OF CASES
SCHOLARSHIP
FIRST TENTH (185) 53% 29% 18%
FIRST THIRD (552) 45% 29% 26%
MIDDLE THIRD (511) 27% 38% 35%
LAST THIRD (247) 22% 33% 45%
CAMPUS ACHIEVEMENT
SUBSTANTIAL (247) 43% 33% 24%
SOME (442) 35% 34% 31%
NONE (621) 28% 34% 38%
EARNING OF COLLEGE EXPENSES
OVER 2/3 (228) 35% 31% 34%
1/3 TO 2/3 (339) 31% 34% 35%
LESS THAN 1/3 (370) 36% 32% 32%
NONE (373) 32% 36% 32%
AGE AT GRADUATION
20 AND 21 (414) 38% 32% 30%
22 AND 23 (632) 34% 33% 33%
24 AND OVER (264) 27% 38% 35%
DATE OF EMPLOYMENT
YEAR OF GRADUATION (810) 39% 34% 27%
1/2 TO 3 YEARS AFTER (270) 30% 35% 35%
3 YEARS OR MORE AFTER (230) 21% 36% 43%
NOTE: BASED ON 1310 GRADUATES FOUR OR MORE YEARS OUT OF COLLEGE. SALARIES WEIGHTED TO ELIMINATE PURELY GEOGRAPHICAL VARIATIONS

FIGURE 6—ANALYSIS OF FACTORS USED AS A BASIS FOR THE SELECTION OF COLLEGE GRADUATES.

third group in salary progress. Conditions of this kind simply show that there is still a large field open for research by the employment manager and the psychologist. This study, however, justifies confidence by the employment representatives of the organization concerned, in giving value to scholastic accomplishment and campus achievement. Although it is probable that similar results would be found by other organizations, the character of their work might well differ enough to change, in some degree, the weights that should be given to these factors.

More complete accounts of such studies may be found in an article, "Does Business Want Scholars?" by W. S. Gifford, President of the American Telephone and Telegraph Company, in *Harper's* for May 1928, and in "Success in College and Business," by D. S. Bridgman of the same company, in the *Personnel Journal* for June 1930.

## REVIEW

Define the functions of the employment manager.

State the factors to be observed in attempting to stabilize employment.

State the method of determining the rate of labor turnover.

List the main sources from which the employment manager can recruit workers.

Explain the plan of forecasting needs in positions of leadership and outline the steps to be followed in meeting these needs.

Discuss the value of cordial relations with colleges as an aid in recruiting employees capable of being trained for executive positions.

Give five bases for judgment of applicants' qualifications in interviewing college men.

# CHAPTER XVII

## DUTIES OF THE PERSONNEL DEPARTMENT—JOB SPECIFICATIONS AND EMPLOYMENT

1. *Compiling of job specifications.*—The importance of using job specifications in the selection of workers was emphasized in Chapter II. If the personnel department is made responsible for employment, the personnel manager has a major interest concerning job specifications and should have a large measure of responsibility in their development. This organized body of information is essential to the employment manager as the fundamental basis for his whole selection procedure. He should have an expert job analyst as a member of his staff.

This staff man should be a person of high intelligence and keen power of analysis. He should understand thoroughly the objectives underlying the preparation of job specifications. In investigating a specific occupation, he should be able to make his observations and ask his questions in a manner that will bring out the full facts concerning each job. He should have the ability to distinguish the important from the unessential items in the mass of data gathered, and should include in each job specification those fundamentals that will give a clear picture of

the work involved. With a tactful and coöperative approach he should be able to enlist the interest of workers and supervisors and awaken in them a response that will insure his getting a true picture of the job. Besides being expert himself in the preparation of job specifications, he must also have the ability to train others in this important field.

2. *Method of preparing the specifications by a special staff.*—A review of these requirements brings us to the consideration of the work of preparing a complete series of job specifications covering the members of the whole organization. There are two schools of thought concerning the manner in which this major objective can be achieved. The first conceives it as a job for experts highly trained in the art of preparing job specifications. These job analysts would be members of the personnel department and report to the employment manager. The assumption here, for purposes of full development of the subject, is that a company is undertaking the preparation of a complete series of job specifications for the first time. The employment manager, with the coöperation and assistance of the operating departments, would select from the ranks a sufficient number of men with qualifications suitable for prosecuting the work. These men would report to the expert job analyst for a thorough course of training in the preparation of job specifications.

A list of all the jobs, occupations, and positions would be prepared in accordance with the classifica-

tion existing at the time the work is to be begun. From this list, groups of positions would be compiled equal in number to the number of job analysts who have been trained to undertake the work. Each analyst would receive a group assignment, preferably in a field reflecting his own experiential background. Each member of the group would then begin his work by making personal contact with individuals in the organization who are doing the jobs that have been assigned to him for study. It would be well for him to begin with an analysis of the lowest ranking job in the group of jobs that he is to investigate. Carrying out the technique that he has learned, and by question, answer, discussion, and observation, he would receive from the holder of the job a mass of detailed information that he would later analyze to discover the fundamentals. Then he would write the job specification.

In addition to working with the man on the job, naturally, he would submit his material for criticism and revision to the man's immediate supervisor and, in fact, on up through the levels of supervision. In this manner, he would insure correctness of definition and the acceptance of his description by those who will later have constant use for the specifications. He would interview, of course, a number of selected individuals who are working at the same job. All specifications, when completed, would be submitted to the staff analyst for criticism and editing, and finally would be placed in the hands of the employ-

ment manager and the personnel manager for approval. The personnel manager undoubtedly would refer the specifications in final form to the department heads interested, receiving their acceptance and approval before giving his own.

3. *Preparation through existing lines of supervision.*—The second course of procedure would be to follow a plan of organization setting up a definitely centralized control and overall supervision, but having the work done through existing lines of supervision. The work of developing job specifications would be absorbed by the existing organization without any changes or major additions to the staff. The problem resolves itself into one of an enumeration of duties to be discharged along with regular work. Full-time service devoted to the development of the project would be required of a certain small number of members of the organization interested in, and contributing to, the development of job specifications. It is a distinct educational process for all who participate. Moreover, the many ways in which job specifications serve in the field of efficient management, make desirable, if not essential, the active participation of the line of the organization in their development. This plan will insure that all factors are given due weight, resulting in well-balanced specifications serving all purposes to which they can contribute, including those of employment.

4. *Development through an interdepartmental committee.*—The general control, then, should be

vested in an interdepartmental committee, the members to include representatives of all those departments that have within them the bulk of the employees. The operating department, which has by far the largest number of employees, might have representatives on this committee from each of its major divisions. It would be appropriate for the personnel manager to be chairman of this committee and the employment manager, or the staff job analyst, secretary.

This committee would generally administer the job specification plan. It would operate as a central coördinating bureau in the promotion of uniformity of practice between departments. It should devise a general plan of procedure and organization, together with working methods to be followed in the development of specifications, and should define fundamental principles regarding the form and content of specifications. It should also suggest methods for developing representative content, standard titles, and uniform classification. The secretary of this committee would prepare and submit to the general committee fundamental studies applying to the preparation and use of job specifications. He would gather information requested by the committee for use in connection with deliberations; prepare and issue instructions, requests, inquiries, etc., authorized by the committee; and make periodic reports to the committee on the overall progress of the plan.

Each department head should select a man to take

up the job specification work in his particular department. This man might be called a departmental supervisor, and should preferably be a staff man having a broad knowledge of the details of management in his particular department. He would generally supervise the preparation of job specifications. In connection with his work, he would prepare and issue instructions to division supervisors and call periodic conferences of supervisory employees to discuss problems arising from the development of job specifications. He would coöperate with other departmental supervisors, edit all job specifications received from the divisions, and see that they contain all information necessary for properly fulfilling their purpose, secure the approval of his department head for all completed tentative specifications, and make them ready for presentation to the general interdepartmental committee for final consideration and approval.

5. *Place of division supervisors in the program.*— Division supervisors, as considered in this organization plan, would include all employees in supervisory positions, from the division superintendent down through the lines of organization to (but not including) the immediate superior of the employees who are to write specifications. These executives, because of their position in the middle strata of the organization, are the individuals most likely to witness the greatest measure of good from the use of job specifications. It is important, therefore, that they should

come in contact with, and take part in, the development work, in order that the full benefits of the use of job specifications may be realized and secured. Their duties in this field might well be to combine specifications received from different workers or groups for a similar job into representative specifications for that job; to modify specifications, if necessary, to include any features that might be desirable from a supervisory standpoint; and to review and forward any constructive suggestions regarding faulty conditions discovered through job study and subsequent preparation of specifications. They could also be of assistance in aiding immediate superiors in the selection of the employees who are to prepare specifications.

6. *Functions of immediate supervisors and specification writers.*—Immediate supervisors are those in all levels of the organization who would be in direct charge of one or more employees selected to write the initial specifications. Their part in the development work probably would be the most important, in that the responsibility for the quality and scope of the specifications would rest with them. It would be their duty to select employees best fitted to write specifications; coach specification writers in preparing the original draft of their specifications; review original specifications and see that instructions have been fully and properly carried out; and combine specifications from different workers doing the same job into a representative specification for that job.

Specification writers, as the name implies, are those employees who prepare specifications for their respective jobs. Not every employee would write a specification, but employees should be designated in sufficient number for the same kind of job to insure specifications representative of all classes, grades, locations, working conditions, and so forth. Specification writers should be selected for their intimate knowledge of the details of their everyday work and their ability to give an intelligent and orderly description of it. They should have some ability in classifying and giving proper weight to a large assortment of facts concerning their jobs. Concretely, then, it will be the duty of these specification writers to prepare original job specifications in accordance with instructions, consulting with their immediate superiors in their respective departments.

As these employees, in some cases, will have limited ability for work of this kind, and as they are to produce the foundation of the specifications, it is essential that their instructions be complete and thoroughly understood. It would be impracticable to point out just where the work of preparing an original specification should end for the employee, and where assistance by the immediate superior should begin. In some cases, the immediate supervisor may find it necessary to give a great amount of personal attention to the writer, while, in other cases, the writer could prepare an excellent first draft unaided. In still other cases, the immediate superior might be

required to prepare the entire specification for certain jobs in his organization that are filled by employees who are poorly educated, or who are otherwise unqualified to prepare them. As the immediate superior is responsible for results, he would use his judgment as to the assistance required, and act accordingly.

7. *Considerations involved in the plan.*—The above description of organization may seem somewhat complicated, but, if it is studied, it shows clearly that in its essentials it follows the regular channels of organization responsibility. It also fixes responsibility for the performance of this large and important task, so that there can be no misunderstanding. It will be noted that the bulk of the work is accomplished by the individuals concerned in connection with their regular duties. No part of the work that each individual contributes makes an excessive burden on his time, or interferes seriously with the performance of his regular duties. The plan offers a good illustration of a proper division of labor. This procedure is economical, in that it demands the full time of only a minimum number of persons. Outside of the personnel department, the department supervisors would be the only members of the organization who would be required to devote full time to the supervision of the work, and this only for the period of time needed to complete the specifications for all members of the department. The departmental supervisor, however, would have a continuous responsibility in revising all

specifications and in keeping them up to date, and insuring that job specifications be prepared for all new jobs that develop from time to time.

The personnel manager, the employment manager, and the staff analyst would be active in coöperating with, and giving assistance to, the responsible line officials in the prosecution of their work. The job analyst, as secretary of the general committee, would keep a continuous check on the progress of the work and would receive all completed specifications from the departments. He would be the editor of the job specifications, making the final revision before they were submitted for approval to the general committee. For any change in their content, he would receive the concurrence of the departmental supervisor.

8. *Minor factors in the development.*—The all-important part of the job specifications is the description of the objectives of the job. For employment purposes, however, there are a number of minor factors that must be determined for use in the selection of employees. These elements would vary in accordance with the conditions and general type of work in a given company. Some of the most usual factors deal with the conditions of work, such as: location—inside, outside, office, factory; time—day, night; hours of labor—per day, per week, overtime; health hazards; accident hazards; standards of output; rate of pay—average earnings, range of pay, starting pay, maximum obtainable; method of payment—monthly, weekly, daily, hourly, piece-rate.

After the job specifications have been completed, the secretary of the general committee, under its instruction, or, if the first procedure is used, the staff analyst, will prepare indices—alphabetical, in groups, and pyramidal—showing the grades in each occupation, by steps, from the simplest to the highest. He will then make a complete distribution of the specifications and indices to all members of the organization who will have use for them.

9. *Employment procedure based on job specifications.*—With the foundations for employment carefully laid through the preparation of complete job specifications, the employment manager carries on his procedure of employment, making constant effort to improve his methods, to insure the highest quality of workmen for each of the many positions in the organization. He and his staff should always be their own severest critics and keep their methods and procedures under the closest scrutiny to prevent failures and to make their results give full satisfaction to all concerned. The tendency in modern industry is increasingly in the direction of centralized employment. It is hard to conceive of a greater functional responsibility than that which provides a business organization with men and women fitted to the highest degree for the jobs to which they are assigned, and with capacity to develop the degree of efficiency demanded in their contribution to the whole.

The importance of this function, then, demands that the employment manager should apply the scien-

tific method to each of his many problems. There is no virtue in a scheme of centralized employment if the employment manager and his staff are content to follow the elementary methods used by their predecessors when employment was handled by many busy supervisors as an incident in their operating responsibility. Every detail of method and procedure, from the first contact with the applicant to final decision of placement or rejection, should be under continuous critical examination to insure the maximum results in placing the right man in the right place.

10. *Important factors in employment procedure.* —What are the important factors in employment procedure that have the greatest influence in the selection of men for employment? It might be well to consider a few of these factors in some detail, to evaluate their importance in the selection process. The thought to be kept uppermost in mind is the influence that these factors have upon decision.

The first element of importance for the employing agent's consideration is the candidate's written application for employment. Realization of the importance of this form of application as a tool in employment procedure has been growing continuously in recent years, and much attention has been given to its structure and to the values of the items of information recorded. In its essence, it is a brief biographical sketch of the applicant's life and gives a glimpse of the individual's former environment and

experience, as a rough indication of what he might be fitted to do in the future. Based on the judgment of employment managers, these application forms have been prepared with similarity in general form and structure, but varying greatly in many of the details. In his studies, the writer has failed to discover that there has ever been a true scientific approach to the preparation of a form of application for employment.

All tools used for selection have for their object the discovery of talent and the employment of that talent where it will be most effective in the business. In an attempt to test the value of an application form, let us examine Figures 7a and 7b in detail. These figures might be considered as illustrations of fairly good form, built up on the basis of experience, good judgment, and common sense. They should not be considered in any way, however, as standard forms.

11. *Relationship between specifications and the application form.*—What definite contributions do the items on this form make toward strengthening the selection process? Obviously, such items as name, address, age, and a few others, are used to set up the administrative record of the applicant, if accepted. Physical data—height, weight, right-handed or left-handed—may have an important bearing on the applicant's fitness for certain jobs. But in asking for such information, do we know the proper height, or the proper weight, for individuals working on certain

_____
(Name of Company)

## APPLICATION FOR EMPLOYMENT

Date _____ 19____

1. PERSONAL DATA

Name _____ Telephone Number _____
First Middle Last

Address _____
Street and Number City State

How long have you lived at above address _____ Are you right or left handed _____

Where were you born _____ Date of Birth _____ Age _____
State Country Month Day Year Years Months

Are you single _____ Married _____ Widowed _____ Separated _____ Divorced _____

Nationality descent: Father's side _____ Mother's side _____

Position desired _____ Height _____ Weight _____

When can you start to work _____

If accepted for employment would you be willing to move to another city _____ State _____
Yes or No Yes or No

Salary at last or present position $ _____ Per _____ Salary desired $ _____ Per _____

Relatives with this Company _____
(Give names, relationship and department in which employed)

FOR FEMALE APPLICANTS ONLY

Do you live with your parents _____ If not with whom _____
Yes or No Give name and relationship, if any.

State your father's occupation _____ Husband's occupation _____

If you have been married give maiden name _____

2. EDUCATION

| School | No. of Years | Graduate Yes or No | Name of Institution | Location |
|---|---|---|---|---|
| Grammar School | | | | |
| High School | | | | |
| Business School | | | | |
| College or University | | | | |

3. PREVIOUS EMPLOYMENT IN OTHER ORGANIZATIONS
Give information for last two places worked

Name of present or last concern _____ City _____ State _____

Street Address _____ Name of person under whom you worked _____

Kind of work _____ What position did you last hold _____

When did you start _____ Month 19____ Year When did you leave _____ Month 19____ Year Salary when leaving $_____ Per _____

Why did you leave _____

Name of the previous concern _____ Name of person _____ City _____ State _____

Street Address _____ Name of person under whom you worked _____

Kind of work _____ What position did you last hold _____

When did you start _____ Month 19____ Year When did you leave _____ Month 19____ Year Salary when leaving $_____ Per _____

Why did you leave _____

Names and locations of any other concerns for whom you have worked _____

(SEE REVERSE SIDE)

FIGURE 7a—APPLICATION FOR EMPLOYMENT FORM THAT PROVIDES FOR RECORDING COMPREHENSIVE DATA REGARDING THE APPLICANT, TO FORM A HISTORICAL RECORD OF HIS CONNECTION WITH THE COMPANY

4. PREVIOUS EMPLOYMENT IN THIS ORGANIZATION

Name of Company _____ City _____ State _____

Department _____ Name & Title of person under whom you worked _____ Name _____ Title

What position did you last hold _____

When did you start _____ Month 19____ Year When did you leave _____ Month 19____ Year Salary when leaving $_____ Per _____

Why did you leave _____

Name of Company _____ City _____ State _____

Department _____ Name & title of person under whom you worked _____ Name _____ Title

What position did you last hold _____

When did you start _____ Month 19____ Year When did you leave _____ Month 19____ Year Salary when leaving $_____ Per _____

Why did you leave _____

Name of other Companies for whom you worked _____

5. REFERENCES
(Give other than former employers or relatives)

| Name | Address | Business |
|---|---|---|
| | | |
| | | |
| | | |

Give names of any acquaintances employed by this company _____

I agree to undergo a physical examination, either before or after employment, by a physician designated by the Company and I consent that such physician shall report the results of his examination to the Company. I agree that said results shall be considered in reference to my continuous employment with the Company.

(Print name) _____ (Signature of applicant)

APPLICANT WILL NOT WRITE IN SPACE BELOW

Remarks:-

Date Engaged _____ 19__ Will Start Work _____ 19__ Position _____

Department _____ Payroll (Number or Location) _____ Rate $ _____ Per _____

Signed _____ Title _____

FIGURE 7b—REVERSE SIDE OF APPLICATION FOR EMPLOYMENT FORM SHOWN IN FIGURE 7a

jobs? If we do not know, why ask for height and weight? Is there any point in asking the applicant where he was born? Do we know, for example, that an individual born in the local community is a better or more stable workman than one who comes from a distance? In taking on a new employee, do we prefer to have him single, and if so, why? Is there a definite reason why married men make superior workmen? Does nationality have any bearing on the efficiency of workers? Are Southern or Eastern Europeans more efficient on repetitive jobs than Americans? Are they more stable?

This particular form does not contain a request that the applicant state his father's occupation. Is there value in getting this slight hint of the previous home environment of the applicant? Would there be an indication of hereditary tendency in knowing the father's occupation? The position desired is, of course, a strong indication of the applicant's interest, and an expression by him of his own capabilities. It is the first small bit of evidence of the fitness of the applicant for a particular vocation. Time of starting work, and willingness to move are important administrative details having little or no bearing on the applicant's fitness for the job. Salary information is important as a measure, by others, of the worth of the individual, but does it bear concretely on the fitness of the individual for a specific job? The questions asked applying to female applicants only, would seem to have more administrative than voca-

tional importance. They are concerned mostly with a determination of the living environment of the applicant. The general question bearing on all this personal data is its adequacy or its oversufficiency; also, for all items not obviously administrative in character, there is the important question of their predictive value in the selection process.

12. *Questions relating to educational background.* —The second general division on the form requests the educational background of the applicant. Without question, this is a record of experience in the life history of the applicant that is of the highest importance. Its correct evaluation in selection and placement is a challenge to the expertness of the employing agent. In surveying the classification of jobs, in a critical study of job specifications, in keen observation of the worker in his work, the employment manager must make some sort of estimate of the minimum amount of formal education required for proficiency in a given task. The element of stability, as well as proficiency, enters into this determination of the amount of formal education required for a specific job. There might be distinct danger in attempting to hire high school graduates for simple repetitive tasks, although this grade of schooling might be the ideal educational background for draftsmen, machinists, and toolmakers. Business school graduates might prove to be better prepared for certain clerical tasks than the regular high school graduate. The fact that a man holds a degree from a

college or a university might be good reason for rejecting his application for one of the more elementary jobs in the organization. Here, again, is a large field for research and scientific determination of the amount of education desirable for the several crafts and positions within the business or industry.

Experience gained in previous employment brings the applicant to the employment office with something concrete to offer. He shows evidence of skill and ability to do specific things. For this reason, statements of previous employment are the most important elements of the application. From them, the employing agent learns the kind of work performed, the position held—indicating the kind of skill acquired—and also indications of the applicant's stability in employment through the time served with each company, and the applicant's reason for separation. The names of the concerns and of the persons under whom he worked are valuable references for follow-up. Sometimes the applicant has had previous employment with the company to which he is now applying for a position. It is of great importance to secure this information, as his previous performance can be determined accurately from the records and through his former supervisors.

13. *Value of previous industrial experience.*—Except in the standardized crafts—as in the building trades, or those of stenographers or typists—it is improbable, of course, that the industrial experience of an applicant can be capitalized fully in the new job

that may be offered him. Here is another rich field for investigation as to the true bearing of previous industrial experience upon the efficiency of a new employee in his new work. There is some evidence, in many industrial establishments, of preference for the employment of untrained applicants of appropriate educational background, who can be trained in the industry for the specific skills required. Claim is made, in taking this point of view, that it is more difficult to break the habit patterns gained by the applicant in other employment, in making his adjustments to the new, than it is to develop an employee with no vocational background. This is a rather academic question, however, for the employment manager will be continually employing men and women of previous industrial experience. The important element in this consideration is that of making a correct evaluation of the experience in its relation to the prospective job.

14. *Usefulness of references.*—References have value as a check on the statements of the applicant and also on the judgment of the interviewer. These references are secured, as indicated on the form, not only from previous employers, but also from individuals who have not been employers. From the latter, effort is made to secure evidence of good character, reputation in the community and, if possible, a general estimate of the ability and capacity of the applicant. Figure 8 shows a form of inquiry to previous employers. The questions asked are simple,

_____
(Name of Company)

## INQUIRY TO PREVIOUS EMPLOYER

_____ 19___

_____

_____

_____

_____

_____ Has Applied to this Company

For employment as _____ and states that

He was employed by you as _____

Under _____

During the period _____

We should appreciate it if you would furnish us the information requested below.

Yours very truly

_____
(Title)

NOTE - Your reply will be considered confidential

_____

How long in your employ _____ Date of leaving _____

Occupation at which employed _____ Last salary rate _____

Were services satisfactory _____

Honest _____ Capable _____ Are you related _____

Would you re-employ _____

Reason for leaving your employ _____

Remarks _____

_____

_____

_____

_____ 19___ Signed _____

FIGURE 8—FORM OF INQUIRY TO PREVIOUS EMPLOYER FOR A RECOMMENDATION

some of them being factual, easily related to the statements of the applicant. Others furnish a somewhat general estimate of the worthiness and capabilities of the former employee. The necessity for caution in the acceptance of statements received from references has already been mentioned. Nevertheless, the information thus received is helpful, if properly evaluated.

15. *Scientific study of factors on application form.* —Returning to the application form, we find space provided at the end for recording the decision of the interviewer or employing agent. Under "remarks" he will express the judgment upon which he based his decision. In this space, some interviewers express their judgment of the applicant by means of a rating scale, which will be referred to later, in the discussion of the interview.

In opening this somewhat detailed discussion of the form of application, the problem presented was to question the values and the weight that might be given to each of the statements made by the applicant. To what extent are we warranted in permitting these statements to influence our judgment of the applicant? In a previous chapter, it will be recalled, and illustration was given of the value of research in determining the warrant for giving weight to elements of college experience in the selection of graduates for employment in industry. A procedure similar to this might be applied at least to the most important elements appearing on the application

form. It would be a great satisfaction to the employment manager if he could determine, on the basis of fact, the relative values that he might give to these factors in their influence on his decision. A well-organized system of records, continuing the work history of each accepted applicant, and a comparison of his progress, or lack of progress, with the various items of evidence on the application form, would throw considerable light on the influence of these items on the future success or failure of the individual. Efficiency, progress, and stability are the important items to check in tracing the applicant's development.

Answers to the questions that have already been raised, or at least to some of them, will evolve slowly out of a continuous study of the worker in his work. The employment manager, for example, eventually will have accumulated sufficient evidence to determine the desirable educational background for each occupation. He will be able to determine the value of previous experience as compared with no industrial experience on the part of accepted applicants. He may be able to state that references have no value, or, on the other hand, that they have high value. He may find that certain racial characteristics may point to greater efficiency in certain crafts. He may be able to determine the ideal physical characteristics for some of the crafts. It should be noted that all of these determinations will be made on the basis of fact, rather than on judgment, or mere opinion.

These points illustrate the opportunities for increased facility and control that centralized employment agencies offer in their efforts toward continuous improvement of the employment procedure.

## REVIEW

State the qualifications of a job analyst.

Outline briefly the procedure that might be followed by trained job analysts in developing job specifications.

Describe the building up of job specifications through existing lines of supervision, or interdepartmental committees.

Summarize briefly the functions that division supervisors, immediate supervisors, and specification writers, respectively, fulfill in this work.

Mention a few of the minor factors that enter into the question of selection of employees.

Comment on the value of the following items on an application form, from the standpoint of their value in meeting job specifications: physical factors, birthplace, race, marital condition, position desired, previous salary.

Of what relative importance, from the standpoint of job specifications, are questions relating to a worker's educational background?

What influence does previous industrial experience have upon the efficiency of an applicant for a position?

Show how the ultimate value, from an employment standpoint, may be obtained from a scientific study of application forms.

# CHAPTER XVIII

## DUTIES OF THE PERSONNEL DEPARTMENT—EMPLOYMENT METHODS

1. *Physical surroundings in the employment office.*—Before taking up a discussion of the interview, it is well to stress the importance of the physical surroundings in which the applicant makes his first contact with the company. The employment office should have a pleasant waiting room. It should be well furnished, with comfortable seats for the applicants; well heated, clean, and with good ventilation. A table should be provided, with papers and magazines available for the waiting applicant. The reading of items that are interesting will give him something to occupy his attention, help him to avoid nervousness, and keep him in a proper frame of mind for a satisfactory interview. Attractive pictures on the walls will have a helpful effect, preferably those illustrating important parts of the plant and typical operations that are carried on in the various departments.

If both men and women are being employed, it would be well to have a waiting room for the applicants of each sex. Adjoining the waiting room there should be provided a sufficient number of small pri-

vate rooms for interviews. The best results can never be obtained if the applicant is interviewed in the presence of other applicants, or persons other than the interviewer. Tables or desks must be provided for the convenience of the applicants in filling out employment blanks, and cabinets are needed for the filing of these blanks and other records. These details are important as much depends upon the impression that the surroundings and furnishings create upon the prospective workman in this, his first contact with the company.

2. *The employment interview.*—The purpose of the employment interview is to secure all the information possible about the applicant's ability, interests, capacity, experience, character, and point of view. The employing agent, or interviewer, a member of the employment division, should be a man of sympathetic human understanding. He should have a good personality and preferably be a man of mature years, with a background of industrial experience. He will have available, of course, and will have carefully studied the job specifications of the organization. It is also most desirable that he possess first-hand knowledge of the job and the conditions under which the employee must work. This information he will obtain by keen observation of the workers at their work and, necessarily to a limited extent, out of actual experience. He should familiarize himself also with the points of view of supervisors and foremen and know what they demand from the workers.

The interview begins with the introduction of the applicant to the interviewer, and the latter's attitude should be cordial and friendly. His manner should place the applicant at ease and encourage him to make a full and frank statement concerning himself. The interview should be, in effect, a friendly conversation, free from all formalities. The application form properly filled out by the applicant forms an excellent basis for discussion. By tactful questioning, the interviewer will encourage the applicant to extend in more detail his previous experience, his interests, ability, and skill, and his general attitude toward the type of work performed in the industry. Skillful interviewing will bring out latent abilities which will have an important bearing on the future progress of the worker, if employed. The interviewer should guard himself against the influence of first impressions, controlling them and permitting his general impression of the capabilities of the worker to develop out of the growing body of evidence coming to him through the application form, and his own skill as an interviewer. He should constantly resist the old "hunch" method of selection.

3. *Result of the interview.*—The result of the interview will be to give the applicant a clear understanding of the work involved in the position which he seeks. Through skillful questioning and observation, the interviewer will get certain impressions from personal appearance, attitude, bearing, manner, and interests and, to a degree, he will form judgment

on the applicant's abilities and qualifications for the job under consideration. The record that the interviewer makes is important and all facts elicited during the interview should be made a matter of record. All judgments recorded should be as nearly uniform in character as possible for each successive applicant and should be consistent in form and terminology. The final judgment passed should be a reasonable synthesis of the various independent items of evidence or observation gathered. Again, as in the discussion of the evaluation of the information secured from the written application, if a uniform procedure in recording the development of judgment is adhered to, it will be possible to check the degree of reliability of these judgments through study of the future work experience of the accepted applicant.

A part of the record upon which the interviewer bases his decision might take the form of a rating on those characteristics that can be observed and determined upon during the short space of time consumed by the interview. Usually, ratings of an individual's qualities should be based only upon the rater's personal knowledge of those qualities in the individual. Even during the short space of time covered by the interview, however, the interviewer will find it possible to rate the applicant on such characteristics as personal appearance, manner, quickness of understanding, friendliness indicating a desire to coöperate, and physical qualities. Evidence may develop that would permit a rating on initiative,

judgment, and reliability. A rating on the general overall impression received of the applicant's interest and capacity, in relation to the position under consideration, also might be recorded.

Uniformity in recording judgments in selection not only has value in future follow-up, but also is very desirable where an employment office has a number of interviewers engaged in employing workers. Uniformity encourages the use of the same standards of judgment. Over a period of time sufficient to measure the progress of the employed workers, the relative efficiency of the employing agents might be measured and the method of the most successful interviewer could then be analyzed for the benefit of all. This is merely another illustration of a scientific attitude toward continually testing the value of the work of the employment division.

4. *Arriving at the final decision.*—It is quite customary, in the discussion of the interview, to speak of the preliminary interview and the final interview. It probably will be found in most busy employment offices that elimination of prospects for employment will take place along the whole line of employment procedure. There may be something about the individual applicant that would cause almost immediate rejection on first contact. The content of the application may show reasons for rejection without further interview. In these cases of rejection early in the procedure, effort should be made to leave with the rejected applicant a favorable impression of the

company. Again, rejection may come as a result of information developed in the early stages of the actual interview and decision may be made here, resulting in the saving of time, both of the applicant and the interviewer.

The crucial time in the employment procedure comes at the conclusion of the interview and, if no more exact procedures for employment have been set up, final decision must then be made and the applicant either rejected or employed. The evidence may be so clear at this stage that the interviewer is able to make his decision with confidence. With all evidence in, as the outcome of application and interview, the interviewer knows full well that procedure up to this point is still largely subjective and unreliable, and lacking in most of the factors of scientific exactness. Probably, in the great majority of cases, he would wish for methods of more accurate measurement. These are beginning to come to him through the slow-growing efficacy of psychological tests.

5. *Employment tests.*—Consideration was given in a previous chapter to the fundamentals of testing human abilities, together with a note of caution concerning the use of tests and a counting of the cost before undertaking their development and use. Whether or not it is economically sound at any given time to install tests as a part of the employment procedure in any given company, no employment manager should fail to keep abreast of the times in this interesting field of applied psychology. He should

have on his staff an expert test technician, capable of developing, constructing, and validating tests, and administering the test procedure. It is not possible, within the compass of this Text, to develop the several steps in test procedure in the detail that the importance of the subject demands. All that can be done is to stimulate interest and prompt intensive study in this field.

There are a number of different classifications of tests. One is concerned with the manner of giving the test, such as individual and group tests. Another comes from the manner in which the material is prepared, tests being referred to as oral, picture, written, and performance. These classifications are used for the purposes indicated, but the most important division is that based on the function of the test, as indicated in Chapter IV, namely, general aptitude (intelligence test), special aptitude, and performance or trade tests. Any functional test may combine a number of the forms. The army trade test, for example, utilized the oral, picture, and performance forms of presentation.

6. *Predictive value of tests.*—The purpose of all tests is to predict future performance. A test of no predictive value is worthless. The most successful test, when applied, is that which has the highest predictive value. When it has been decided to prepare tests for a specific occupation, the test expert will make an intensive study of the occupation, basing his study on job specifications, more detailed job

analysis, time and motion studies, if available, and all the conditions under which the applicants must work. His study of the job will lead him to determine the abilities most essential for success. On the basis of this intensive study he will select tests already prepared, or devise new ones to meet the conditions called for by the occupation being studied. The existing standardized tests are few in number, and are added to only slowly. They are applied to highly standardized occupations.

The best work to date has been done in the clerical field. Excellent tests for typists, stenographers, general clerical forces and clerical machine manipulators have been developed, accepted, and widely used in a large number of business concerns. Many favorable reports are available indicating increased efficiency and reduced turnover resulting from improved selection by means of these tests. Numerous tests for many other occupations have been developed and are available, but have not been standardized. There are several good bibliographies of available tests with which it would be well for the test expert to familiarize himself, so that he may make selections of tests for use or adaptation. Because of the infinite variety of occupations in modern industry, it will be difficult for the test expert to discover an existing test, outside of those that are standardized in a few certain lines, to fit exactly the conditions of the occupation which he has under consideration. He may find tests in closely allied fields, however, which he can adapt

to his own use perhaps more easily than he can invent or devise a new test.

7. *Development of tests.*—If the test expert finds it necessary or desirable to devise a new test, he brings to bear upon its development his intimate knowledge of the job under consideration and his fundamental knowledge of tests and test methods and materials. Tests, in their essence, are simple performances that bear close analogy to the more difficult and complicated performances demanded by the job. A good test must be simple in its structure, but must call for a response that will indicate the applicant's possession of latent ability to meet the requirements of the job.

The type of test selected for development will depend upon the nature of the major effort involved in the occupation. If the requirements are more of an informational character, or of a character demanding some planning effort, a test of the nature of a general intelligence or mental alertness test may be most efficacious. If the major effort involved is one of skill, a special aptitude test for manual dexterity and muscular coördination may be indicated. Where skill in the occupation is already claimed by the applicant, a performance or trade test would be found most desirable. Where the mental function predominates the physical in the work to be performed, the test will take the form of a mental alertness test, but the questions can be directed toward the specific mental effort demanded in work on the job.

## EMPLOYMENT TEST

**USE MARGINS FOR ANY FIGURING NECESSARY**

| ITEM | PROBLEM | ANSWER | TYPE |
|---|---|---|---|
| 1. | 17 + 4 = 21 | RIGHT WRONG | *A* |
| | "Please inform me if I may open a charge account with you?" | | |
| 2. | ORDER INQUIRY | COMPLAINT REPLY | *D* |
| 3. | C. O. D. CHARGE | EXPRESS MAIL | *D* |
| 4. | 18 — 3 = 15 | RIGHT WRONG | *A* |
| 5. | 39 acres of land at $135.00 per acre = | $..... | *B* |
| 6. | 4 × 27 = 27 | RIGHT WRONG | *A* |
| 7. | 827———287 | SAME DIFFERENT | *C* |
| 8. | 18 + 6 = 9 | RIGHT WRONG | *A* |
| 9. | 794———974 | SAME DIFFERENT | *C* |
| 10. | 14 gals. oil @ 31c per gallon = | $..... | *B* |
| 11. | 84 + 7 = 14 | RIGHT WRONG | *A* |
| | "I enclose $1.00—Send me by parcel post one dozen pencils." | | |
| 12. | ORDER INQUIRY | COMPLAINT REPLY | *D* |
| 13. | C. O. D. CHARGE | EXPRESS MAIL | *D* |
| 14. | 27 + 9 = 38 | RIGHT WRONG | *A* |
| 15. | 90 feet of wire @ .07 per foot = | $..... | *B* |
| 16. | 88 — 12 = 66 | RIGHT WRONG | *A* |
| 17. | 7591———9591 | SAME DIFFERENT | *C* |
| 18. | 7 × 8 = 56 | RIGHT WRONG | *A* |
| 19. | 5794———5974 | SAME DIFFERENT | *C* |
| 20. | 9½ hours labor @ 58 cents per hour = | $..... | *B* |
| 21. | 4 + 18 = 14 | RIGHT WRONG | *A* |
| | "Your letter of the 17th indicates that these goods were charged to my account." | | |
| 22. | ORDER INQUIRY | COMPLAINT REPLY | *D* |
| 23. | C. O. D. CHARGE | EXPRESS MAIL | *D* |
| 24. | 9 — 8 = 1 | RIGHT WRONG | *A* |
| 25. | 34 shovels @ $2.25 per shovel = | $..... | *B* |
| 26. | 66 + 3 = 22 | RIGHT WRONG | *A* |
| 27. | 7829———7982 | SAME DIFFERENT | *C* |
| 28. | 14 + 28 = 52 | RIGHT WRONG | *A* |
| 29. | 8337———8337 | SAME DIFFERENT | *C* |
| 30. | 16 hours labor @ 31¼ cents per hour = | $..... | *B* |
| 31. | 8 × 7 = 63 | RIGHT WRONG | *A* |
| | "Do you ship any goods to be paid for at delivery?" | | |
| 32. | ORDER INQUIRY | COMPLAINT REPLY | *D* |
| 33. | C. O. D. CHARGE | EXPRESS MAIL | *D* |

*Courtesy American Management Association*

FIGURE 9—PART OF A TYPICAL MENTAL ALERTNESS TEST

8. *Mental alertness test.*—As an illustration of this type of test, Figure 9 shows the first page of a clerical test which appears in a paper on tests by Eugene J. Benge, published by the American Management Association.

This sample shows several of the possible methods of phraseology. The phraseology that is used to obtain the applicant's responses is very important. It is desirable, for purposes of scoring, that the responses be brief, limited to the minimum amount of writing. Not only is this advantageous to quick scoring, but it also eliminates the disadvantage under which a poor writer would suffer. The sample illustrates a phraseology that requires as a response either the underlining of a word, or a concrete answer in figures to arithmetical problems.

Item 1 illustrates the alternative choice form, or question, expressed as here shown by "right" or "wrong." The same form of phraseology may be expressed as "true" or "false," "same" or "opposite," and so on. As the applicant is called upon merely to underline one word, enabling speedy reply, a large number of short questions of this type can be used in a test. Items 2 and 3 illustrate the multiple choice phraseology, in response to which the applicant is asked to underline the word that gives the correct response. Item 5 is a simple example in multiplication and permits of but a single response in giving the correct product. This phraseology is used also in answer to questions where the memory

of the applicant is involved. The so-called free response, which is illustrated by the usual type of educational examination permitting the applicant to use an unlimited number of words, makes the administrative task of scoring so difficult that such a response is virtually useless.

9. *Principles for compiling tests.*—The principles to be observed in compiling tests have been very well stated in Mr. Benge's paper and, in general, agree with those presented by other authorities on test procedure. They appear in his paper as follows:

(1) Avoid selection of content according to personal knowledge, bias, or opinion. I recall one investigator who possessed a very large vocabulary, and who inserted a vocabulary test as part of a spiral omnibus business ability test. The difficulty of many of the words selected was far above the average business man's vocabulary. It required considerable trial of his tentative test to convince the examiner that "Jim" was out of step and not the rest of the army.

(2) Insert more items in the tentative than you expect to include in the final. This is merely good insurance permitting you to eliminate poor items and yet have sufficient responses to check up the test results against the criteria.

(3) Consult sources other than your job analysis. Not infrequently other investigators have studied the same type of work although possibly from some other angle. Tests devised by other investigators, educational curricula, employment specifications, analyses made by time and motion study men, and material prepared for vocational guidance are frequently quite suggestive.

(4) Avoid items of current interest. For example, the question, "On what date did the Titanic sink?" would be-

come increasingly difficult each succeeding month after that catastrophe. Another question which falls in this category is one like the following: "Who is president of the Society of Automotive Engineers?" The correct response to a question of this type is likely to change each year. Furthermore, its difficulty at time of installation of officers, at mid-term, and just prior to the election of new officers varies considerably.

(5) Avoid catch questions. Applicants who feel that the questions are of a catch variety tend to lose confidence in the test and also to seek a double meaning, so increasing the ambiguity of items unnecessarily. A question like, "How many coins per minute can be counted by a Hollerith machine?" has no value. The applicant who knows that the Hollerith machine does not count coins becomes suspicious of all succeeding items; the ignorance of the applicant who does not know what the Hollerith machine can do can be ascertained by a more sensible question.

(6) It is preferable that no item depend upon a knowledge of, or the correct answer to, any previous item.

(7) Test questions should be arranged in a tentative order of difficulty according to the examiner's judgment.

(8) The correct answer and any possible alternates should be written in advance.

(9) Items should be phrased in the terminology and at the educational level of those who will normally take the test.

(10) The examiner must decide if the test will be a work limit or a time limit examination. The work limit type permits the candidate to perform all the problems, and time consumed is noted; the time limit test allows a definite time in which few candidates can complete the entire test and the number of items tried and right are noted. The number of questions to be included in the test and, if it is to be a time limit examination, the amount of time to be allowed must further be decided.

(11) At the outset allow one point for each correct item until a better method of weighting can be established by later statistical studies.

(12) To note the clearness of directions and questions, try out the test in its tentative form upon a few individuals other than the test group even though they may not be familiar with the work for which the test is intended. Sometimes the administration to the trial group of a tentative test containing highly ambiguous directions and questions not only vitiates the results obtained from the group but also prevents for a long time following a repetition of the revised test on that same group.

The term "spiral omnibus test" requires a word of explanation. Where an occupation seems to require various kinds of tests to secure representative samples of the types of behavior it is desired to measure, these tests, or parts of them, may be combined into what is called an omnibus test. Where the items in the test begin with those of least difficulty, and increase in difficulty as the test proceeds, the arrangement is known as spiral—hence the designation "spiral omnibus tests."

10. *Testing employment tests.*—When the test or tests have been selected or devised for the occupation under consideration, the next step is to validate the test. In other words, we must test the test. The first step in this procedure is to determine the criterion of success in the given occupation. Criterion of accomplishment, in this sense, means something that may be used as a measure for gaging a worker's relative success or failure. There may be a number of criteria of success for any given occupation, but

the test expert would select the criteria that best illustrate the abilities required for efficient performance.

In all productive jobs the quantity and quality of output are undoubtedly the strongest indications of efficiency on the job. In accepting quantity and quality as criteria, the test expert must assure himself that production is being turned out by the workers under precisely the same conditions. The working environment, for example, must be the same, including the same conditions of heat, light, and ventilation. The quality of materials should be the same and the materials should be delivered to the worker with the same regularity; machines should be running at the same speed. If variations in the conditions under which the employee works are unavoidable, due allowance should be made for them.

One good illustration of care taken in establishing correct criteria is furnished by the work of Dr. L. J. O'Rourke, Director of Research of the United States Civil Service Commission, as reported in Bingham and Freyd's "Employment Psychology." In developing improved tests for the selection of post office and railway mail clerks, Dr. O'Rourke undertook to measure the actual ability of the men on the job. He arranged with the Chicago Post Office to weigh the first-class mail, distributed daily by a representative group of 124 clerks during a six-month period. The average number of pounds distributed by each clerk, together with the time in minutes required to

do this work, constituted his first criterion of ability. A second criterion was a record in a monthly examination, or test, to determine how accurately and quickly each clerk could distribute mail into his own distribution case. To these objective measures of ability was added a third criterion—foremen's ratings. The combined criteria gave a satisfactory measure of actual ability as a mail sorter and made possible the validation of the new type of Civil Service test by means of which 60,000 to 80,000 applicants a year are now examined more easily, accurately, and fairly than before, with much less expense to the government and with measurable improvement in the average ability of applicants selected.

11. *Various criteria to apply.*—In any manufacturing establishment, where employees are working on a piece-rate basis, a record of the quantity and quality output of each worker will be readily available. If there are no records of this character, it may be necessary and, in fact, a saving of time for the test expert to have prepared a comprehensive examination that would definitely measure the abilities required in a worker who is to do the job. This examination would be given to a representative cross-section of the workers engaged in the occupation for which tests have been prepared, and would determine the criteria for success in the job. It might be well, if such an examination is undertaken, to give it to a group primarily selected for the later administration of the proposed tests.

If there is instability in the occupation under consideration involving high labor turnover, length of service of the employees in the group might become an important criterion of success. Where sources for the objective measurement of ability factors are lacking, subjective ratings by immediate superiors, or by fellow workmen, may be used to set up the criterion of success. Variations by individuals in the judgment of their fellows constitute an element of weakness in this means of determining proper criteria. If the rating is done by experienced raters, however, and if each worker is rated by three or more individuals, considerable dependence can be placed upon the result. While quantity and quality of output, examinations, and ratings are the most important means of determining criteria, the alert test expert, in the study of the occupation under consideration, may discover other means of setting up criteria.

12. *Measuring the value of tests.*—Having established the criterion, we now come to the actual testing of the test. If the test measures, with some exactness, the abilities required for success in the occupation, it will be a good test and have predictive value. To prove the quality of measurement provided, it will be necessary for the test expert to administer the test to a group of workers already engaged in the occupation, on the basis of the criterion established, let us say, on the basis of quantity and quality of output. The group selected should be composed of a cross-section of the whole body of work-

ers in the selected occupation; in other words, there should be average, good, and poor workers in the group, as determined by the criterion. The group should be large enough to produce statistical records of value, twenty being considered a minimum, and one-hundred a good average-size group. When the number of workers in the occupation is large, the size of group to be tested might well be increased.

The test should be administered to this group with all the care and precision in which it would be administered when used in the employment procedure for applicants. At the conclusion of the test, the score of each individual is determined. On the basis of these scores, the members of the group are ranked in order of excellence, the man with the best score at the top. The ranking of the men on the test is then compared with the rank of their ability in actual production, determined by the criterion adopted. If the agreement should be exact, the test would be perfect, and have 100 per cent predictive value. No test has yet been constructed, however, which approaches such perfection. Undoubtedly there will be many variations between the rank on the test and the rank on the criterion, and this condition presents the necessity of determining the relation between the two variables and of the amount of agreement between them.

In this procedure of testing the test, the questions we are seeking to answer are: Do individuals scoring high on the test prove to be better workers than

those scoring lower? Are those scoring very low on the test rather uniformly in the group of incompetent workers? One practical method of determining whether or not these questions should be answered in the affirmative is to make a table, in the first column of which appear the test scores of the individuals, arranged in accordance with their excellence. In the second column would appear the ranking of these individuals, the person making the highest score being number one. In the third column, enter the rank given each individual on the criterion selected, such as quantity or quality of output, or rating of supervisors.

A rather superficial examination of the two columns giving the rank of the individuals will show whether or not there is a general agreement in the rankings. Percentages of the agreement, however, can be worked out somewhat as follows: Let us assume that one of the individuals rated on the job as an average worker makes a score of 47 on the test. It is then found that, of all those making a score better than 47, 79 per cent are above average workers and 21 per cent are below average, while of those scoring lower than 47, 13 per cent are above average workers and 87 per cent are below average, or poor. These percentages indicate quite definitely, a reasonably close relationship between the scores on the test and the ranking on the criterion. This comparison not only shows that the test has high reliability, but also shows the degree of reliability.

13. *Method of checking agreement.*—The second means of determining the validity of a test is through the method of correlation. The correlation coefficient is a mathematical value developed through statistical calculation. It indicates how close the agreement is between the test scores and the ratings of the individuals on the criterion. The system calls for a coefficient of zero when there is no agreement at all between the two rankings. It is plus 1.00 if the two rankings agree perfectly, and minus 1.00 if the rankings run in precisely opposite directions. The correlation coefficients are always decimal, falling somewhere between minus 1.00 and plus 1.00. On this basis, all coefficients above zero would indicate that the test has some validity. A coefficient of 0.79 would indicate a high degree of correlation. If the correlation is zero, the test would be of no value whatever. It is not the intention here to attempt to develop the statistical method used in the determination of coefficients of correlation, or the mathematical formulas involved. It is sufficient to state that the accepted formula most in use is the Pearson formula. Caution must be used in the interpretation of correlation coefficients. Interpretations should be made only by those who are expert in such work.

The credibility of these coefficients will be measurably increased if the utmost care is exercised in administering the tests to the test group. The procedure should be identical in every way with that which it is proposed to use in testing applicants for

employment. The group selected for the test should be reasonably homogeneous as to age and length of service, and, as before stated, should cover a range of abilities in the criterion from poor, through average, to excellent.

14. *Scoring the tests.*—Tests must be constructed so that they may be scored expeditiously and at low cost. Ease of scoring can be achieved through the typographical set-up of the test. The replies to the questions in the test should be definite to insure that the answers are either right or wrong. In recording the answers to the items in the test, it is desirable that the answers be set down on the right-hand margin of the page. The checking of the correctness of the replies then could be done by an inexperienced person provided with a strip of cardboard having correct answers inscribed on it, and so spaced that the check strip could be laid upon the right margin of the test, to bring each answer of the individual tested abreast of the answer on the card. The correctness or incorrectness of the reply can be checked almost instantaneously by this means.

The conditions under which the tests are given will control the manner of scoring. Tests may be scored merely on the time required to complete the task. In other cases the score is made on the number of units attempted within the given time limit; number of units completed correctly; or number of units completed correctly, minus the number of units completed incorrectly. This latter method has the ad-

vantage of correcting for the effect of pure guessing. These methods are merely illustrations of the manner of scoring. There are many refinements of correcting and weighing the value of the items in the score, but, of course, the method of scoring will always depend upon the type of tests used.

15. *Administration of employment tests.*—After the tests have been validated and decision made to use them in the employment procedure, their administration must receive consideration. To leave himself free for the development of further tests, the test expert should train assistants in the conduct of the examinations. As in the case of the test expert himself, the assistants should be persons of tact, capable of winning the confidence of the applicants. These examiners preferably should have a background of industrial experience. In the economical organization of the employment manager's office, the test examiners might well combine these additional duties with those of interviewing. In fact, it is of advantage for one employing agent to carry each individual applicant through the whole employment procedure.

The examiner must be meticulous in carrying out the instructions for administering the test with great exactness and without the slightest variation. The value of a test may be ruined by an examiner who thinks he can improve on the administrative procedure. It is imperative that each applicant receive the same instructions and that he be introduced to the

test in the same manner. If the test is an individual test, it may be administered in the interviewer's private room. If it is a group test, space appropriately furnished must be provided in a room free from distracting influences.

16. *Relationship between tests and selection of workers.*—In concluding this brief discussion of tests, it should be understood that tests are not substitutes for other methods of selecting men, but are supplementary to them. However efficient tests may be in discovering men who have abilities to do a specific job, there are many other human qualities that must be discovered by other means. The interview is the most important of these measures and can never be dispensed with. All the methods used in the employment procedure have for their final objective the assembling of all possible evidence bearing on the fitness of the applicant for the job. They all tend to give to the employing agent increasing confidence in his final decision. In developing further the scientific attitude toward this problem of selection, continued research in test procedure should be carried on through study of the progress and ultimate success, or failure, of accepted applicants who, during the employment procedure, were subjected to the employment tests.

## REVIEW

State what can be done to make the physical surroundings attractive in the employment office.

Explain the methods employed in judging the suitability of an applicant for employment.

List the important classifications of tests.

Outline the method of developing an employment test.

List five or six important principles to be followed in compiling tests.

What methods are followed to measure the value of tests?

Outline the procedure followed in the scoring of tests.

How should employment tests be administered?

# CHAPTER XIX

## DUTIES OF THE PERSONNEL DEPARTMENT—PLACEMENT AND PROGRESS

1. *Final steps in the employment procedure.*—When the employment process has been carried to the point of determining that the applicant is acceptable from the standpoint of his qualifications, the final step taken is to give him a physical examination. The importance of this examination has already been discussed in a previous chapter and emphasis has been placed on its value to the applicant, in guarding him against undertaking work beyond his physical strength; to the employer, in the rejection of the physically incompetent; and to fellow workers, in protecting them from possible contagious disease.

To those inexperienced in employment problems, the employment procedure described in the foregoing pages may seem involved and cumbersome, and perhaps may appear to place undue importance on the process of selection. However, it is easy to visualize the expeditious manner in which the employment procedure is carried on in a well-organized, efficiently operated employment office. The applicant appears, is greeted courteously, and is invited

to fill out an application form. Taking this form with him, he is introduced to the interviewer, who, with his experience, will quickly acquaint himself with the background of the applicant and, if his judgment up to this point is favorable, will administer the test for the occupation under consideration. With this test confirming his judgment of the qualifications of the applicant, he sends him to the medical department for physical examination. When the applicant returns to the interviewer with a certificate from the medical officer giving him a clean bill of health, he is ready for placement.

2. *Instructing the new employee.*—The new employee is given careful instructions before he is assigned definitely to his work. These instructions probably can best be given by the interviewer who selected him. If the process of inducting the new employee into his job, however, requires a final check-up by the supervisor or foreman under whom he is to work, the final instructions might be given by the foreman. This method would give opportunity for final agreement between the interviewer and foreman on the qualifications of the applicant. Even if the responsibility for final instructions rests upon the man for whom the accepted applicant is to work, the interviewer should make sure that there are no misunderstandings.

3. *Clearing up possible misunderstandings.*—It is of the utmost importance that the new employee should understand the terms of employment. Un-

doubtedly, he has been informed of them during the period of the interview, but the applicant usually will be inclined to be a little nervous throughout the employment procedure, and confused over the many new details concerning his future work which he has been expected to absorb. If he goes to his assignment with a mistaken idea concerning any of the details of his employment, there will be danger through this misunderstanding that he may think he is not being fairly treated.

There should be a final confirmation, therefore, preferably by the interviewer who selected the applicant regarding all matters of special importance, particularly concerning the amount of wage he is to receive, both for regular time and overtime, and the manner in which payment will be made. He should understand clearly the number of hours in his working day. It might be well, in order to insure a clear understanding of the terms of employment, to make the information conveyed a matter of record, and have the employee sign this written statement, which then can be made a part of his personnel record.

In introducing the new employee to his new job, the importance of good first impressions cannot be too strongly emphasized. A good start will carry the worker far through his difficult probationary period. The economic importance of proper induction of the new employee is made clear when general experience shows that labor turnover is greatest during the first three months of the worker's service. Increased

stability through courteous and considerate treatment at the beginning of the worker's service will have a direct effect in the reduction of employment costs.

During the employment process, of course, there will be some discussion with the applicant concerning his future prospects in the organization. The interviewer undoubtedly will tell him something of the salary or wage increases he may expect through meritorious service, and the promotions possible for men in his line of work. Great precautions are necessary here to guard against possible misunderstandings, and avoid any statements that might be construed as definite promises of advancement. On the rare occasions when a definite promise is made, a record should be made of it immediately, and a routine set up to insure the fulfillment of the promise on the date on which it is due. To fail in this matter would tend to destroy the worker's confidence in the organization.

During the employment interview, undoubtedly the new employee will be given considerable information about the company—the principal products manufactured, or the service rendered, and the organization policies, ideals, and regulations. It would be hard for him to absorb all of this information during his own response to the employment process. It would be well, therefore, at this stage for the interviewer to review the information briefly and also to use a method that is steadily gaining favor in in-

dustry, which is to hand him a published pamphlet, attractively printed, containing all of this information and showing clearly what is expected of him and what he may expect of the company. He will have opportunity to read this material during his leisure time and can use the booklet continuously for reference.

Before the new employee leaves the employment office, the interviewer makes a careful inspection of the personnel record thus far secured. He checks on possible errors, such as mistakes in spelling the name, incorrect address, and errors or omissions in the required personal information.

4. *Introducing the worker to his job.*—The next step in the employment procedure is the introduction of the new employee to his job. If pressure of work is not too great, perhaps the very best method is for the interviewer, himself, personally to conduct the new employee to his place of work and introduce him to his foreman or supervisor. Of course, if during the employment process the new employee has already met his supervisor, this formality will not be necessary, and the worker may be sent to report with a messenger as guide. Sometimes the foreman comes to the employment office to receive the new employee. When the latter goes on the job, the foreman introduces him to his fellow workers and either undertakes the beginning of the worker's instruction on his new job, or delegates this responsibility to an assistant or fellow workman.

Whoever is responsible for the new worker's induction into his work will inform him of the facilities provided for his personal comfort, such as the lunchroom, restroom, library, locker-rooms, toilets, washrooms, drinking fountains, exits, fire escapes, the method of keeping his record of attendance, medical attention, and all similar matters. A friendly attitude on the part of the foreman, his assistants, and working associates during this breaking-in process, will go far toward helping the new worker quickly to adjust himself to his new environment and feel "at home." One move at this stage, that will give the new employee the greatest satisfaction, is to get him quickly to work—whether it be on instruction for the job, or in the actual production process. To be occupied, with his mind strictly on his task, will give him no time for mental preoccupations which might tend toward depression and discouragement.

5. *Checking up on the selection.*—The responsibility of the employment division does not cease with the initial assignment of the new employee to his job. It is essential that the interviewer have early confirmation of the wisdom of his judgment in the selection of the man. A delicate question of organization ethics may arise at this point. There can be no question that the interviewer who selected the man has a vital interest in the developing efficiency of the employee selected by him and the satisfaction that the worker is getting out of his job. The best way for him to determine these elements is through per-

sonal contact with the worker himself, and with the worker's foreman. This personal contact with the worker might develop a fear on the part of the foreman that the action interferes with his prerogatives, and may create in the mind of the worker a divided allegiance. With the right spirit of coöperation between the members of the employment division and the operating officials, however, with an integration and an appreciation of their mutual responsibilities, with a tactful handling of the situation by the employment representative, and with good teamwork on all sides, the possibility of embarrassment over a situation of this kind is bound to disappear.

This follow-up should come early in the employee's work experience, as soon as possible after he is fairly well settled in his job. Approximately one month after employment would probably be an appropriate time. If the interviewer were to talk with the new employee on the job where he could sense the whole situation, he undoubtedly would secure better results than if he carried on the interview in the employment office. A personal interview with the man's foreman would be better than calling for a formal written report from the foreman. It will be a satisfaction to the interviewer, on this check-up on his own judgment, if he finds that the new employee is working with satisfaction to himself and that the foreman thinks well of the worker's progress. If there is dissatisfaction on either side, a problem for adjustment is presented. The worker may be placed wrongly

and should be transferred to other work. He may be disappointingly inefficient, in which case early separation from the company may be necessary. On the other hand, the maladjustment may be due to misunderstandings that might be cleared up to the satisfaction of all concerned. At all events, it seems clear that an early follow-up is desirable to check the efficacy of the employment procedure and correct mistakes as soon as possible, before a threatening situation becomes serious.

All representatives of the employment division should guard themselves against magnifying the importance of the technique of employment or dehumanizing it into a lifeless routine. The whole office should maintain an atmosphere of friendliness and human understanding toward the applicants and a spirit of coöperation with all members of the company that the division serves. In the last analysis, efficient employment service rendered to all the departments of the organization is the one thing that will smooth the road for the employment manager, removing all obstacles, reducing prejudice, and commanding the confidence and support of all members of the organization.

6. *Recognition of merit in the employee.*—In studying the development, progress and advancement of all employees, there is only one policy to adopt and that is the "square deal," rewarding each individual on the basis of merit. This principle is easy to state, but most difficult to put into execution. All con-

scientious executives sincerely maintain that reward on the basis of merit is at the basis of all fair treatment. Unless some dependable procedure is set up to determine merit, however, sincerity in its application may be challenged, because of the superficiality of its determination. Increasing attention is being given to this important subject, with emphasis, perhaps, more in the consideration of the supervisory and executive force than of the general forces. Manifestly, the working out of the scheme for recognition of merit requires the active consideration of the whole management group in its achievement. Staff leadership in this direction could well come from the personnel department. Details of procedure should be studied and developed, then made available to the operating forces, and the results placed on record in the employment office, where helpful compilations, analyses, and interpretations can be made. This work logically would be assigned to the employment division with advice and counsel from the research director.

Let us first consider measures that will aid in the recognition of merit among the members of the executive and supervisory group. In any organization, it is essential that the higher executives have accurate knowledge of the capabilities, the deficiencies, and progress, or lack of progress, of men in supervisory positions, as well as those, who, in due course, may be expected to occupy supervisory positions. This necessity arises from four primary motives:

(a) That promotion may be given to the individual best qualified for promotion, and that salary treatment may bear a satisfactory relationship to ability and performance
(b) That men of superior ability may be discovered at the earliest practicable time and be given the opportunity in various ways to make use of and extend such ability. Conversely, that men of subnormal qualities and prospects may be located and properly dealt with before they become a liability to the organization
(c) That men, otherwise capable, who have shortcomings in particular respects, may be given an opportunity to recognize and overcome such shortcomings
(d) That management may be assured at all times that the supply of material for supervisory and administrative positions is adequate

7. *Methods of appraising men.*—In all organizations, particularly in large ones, it is difficult, if not impossible, to satisfy these necessities without some adequate system of appraising men. With the large numbers to be dealt with, it becomes impossible for an executive, or the head of a department, to know with any certainty the capacity of his human material, except as to the limited number with whom he comes into personal contact.

Decisions as to how adequately employees are filling the positions they occupy, decisions as to whether employees are entitled to larger remuneration, decisions as to which of a number of employees is the best one to select for promotion to more responsible work, decisions as to whether an employee has capa-

bilities that justify considering him as one who will develop are, to a very great extent, based on second- or third-hand information, frequently influenced by considerations of the moment rather than upon deliberate analyses continued over long periods of time. These conditions are true in the consideration of appointments and promotions for all but the most important supervisory positions. It is true, to a greater extent, that knowledge of the abilities and potentialities of individuals among the large groups of subordinate supervisors, and those reporting to them, is even more casual and secondhand.

8. *Reducing the judgment factor to a minimum.*— There is evident need for developing and utilizing some plan by which, as far as possible, the judgment factor entering into these decisions may be reduced to a minimum, and by which the judgment that must unavoidably be exercised may be given as much support as possible. The situation has been expressed by Harvey Ellerd, of the personnel department of Armour & Company, as follows:

> The defect in the old system of judging abilities and qualifications of supervisors was that consideration was not given to all the qualities and too often judgments were formed on one or two conspicuous abilities or characteristics and the others were not weighed. Very often the person doing the judging attached exaggerated importance to certain qualities and entirely disregard others. Offhand opinions and personal prejudices played entirely too important a part. Because of these defects it became apparent that an organized, systematic attempt to value all qualifications, experi-

ence, and performance was bound to produce better results.

These considerations, which are generally recognized, have led to various attempts to analyze and rate men, with various, and to a certain extent successful, methods set up by different organizations that have made the attempt. It would be impracticable to develop any number of these different methods, but one that is typical of some of the best of them might be discussed in the present connection. A plan to analyze and rate men must be constructed with reference to the purpose for which it is intended to be used, and to the character of individuals to whom it is to be applied. In applying a plan of this character to any business or industrial organization, the personnel should be divided into three main groups:

(a) The so-called general forces made up of craftsmen, and others, forming the base of the pyramid of organization, shown in Figure 1, on page 4

(b) The lower supervisory forces and those reporting to them, roughly shown by the two lower levels of supervision in the pyramid of organization. This group would also include those in minor staff positions.

(c) The higher supervisory forces, including all those above the second group, up to the high executive levels

9. *Analyzing the supervisory group.*—Comment on the study of development and progress of the first group will be given consideration later. The second

group includes numbers of men of widely different types and varying responsibilities in production. They have authority over small groups of employees, but there has not yet been presented to them any great opportunity to demonstrate real executive ability. This group is composed of two main classes.

The first class is composed of men who have gravitated into, or found their level in, these positions after years of service, because of their inability to fill more responsible positions. An analysis of these men can be used to determine, and if possible to correct, the shortcomings that have prevented them from making further progress and to determine, in a general way, their ultimate place in the organization, so that salary treatment may be adjusted to the indicated ultimates. Failure to coördinate salary treatment with ultimate objectives has frequently resulted in overpricing men with respect to the work they do, or can do.

The second, and more important, class comprises the younger men, some of whom presumably are passing through these levels in the organization to ultimately higher positions. Failure to discover these promising young men, and to keep them progressing, will result in loss of morale and often in the resignation of the most ambitious and useful prospects.

As to this group as a whole, the main thing to be determined by an analysis is the character of the respective men and the manner in which each measures up to his present responsibility. It is of distinct value

to have some idea as to how soon he might be ready for promotion to the next higher job and in what general direction his abilities can best be used. It is not necessary at this time to attempt to determine whether he is capable of being a future executive, nor how far up the line he may ultimately go. What we are seeking here is to measure performance against the present job, and to segregate the plus men from the average and the minus men.

10. *Method for making the analysis.*—For this purpose, an analysis table of the character illustrated in Figure 10 may be used. Its general design follows what has come to be recognized as a somewhat standard set-up. On the left side of the page are listed nine qualities or characteristics that are believed to be most essential. To the right of these qualities are listed certain descriptive words indicating the varying degrees to which an individual may possess, or lack, a specified quality. The person preparing the analysis places a check mark on the horizontal line at the point that he believes describes, as nearly as may be possible, the degree to which the individual he is analyzing possesses each ability. The mark can be made at any point on the line, and not necessarily immediately above the descriptive word or words.

Answers to these questions, when properly summed up in an overall total, will determine the general worth of an individual. This total is obtained by use of a celluloid template on which are shown the values assigned to each ability according as it may be present

ANALYSIS OF LINE AND STAFF EMPLOYEES OF THE LOWER SUPERVISORY GROUP

Name
Department
Area

Title
How long in present position

Date

Analysis by

| | | | | | |
|---|---|---|---|---|---|
| 1. ABILITY TO LEARN<br>Consider his success in learning new methods and grasping new ideas | Very superior | Learns readily | Ordinarily bright | Slow to learn | Dull |
| 2. QUANTITY OF WORK<br>Consider his success in turning out work within reasonable time limits | Unusually rapid worker | Good producer | Generally on time | Has to be prodded | Always behind-hand |
| 3. QUALITY OF WORK<br>Consider the neatness and accuracy of his work and his ability constantly to turn out work that is up to standard | Makes many mistakes | Careless | Acceptable | Good quality | Highest quality |
| 4. INDUSTRY<br>Consider his energy and application to the job, day in and day out | Very energetic | Industrious | | Takes things easy | Lazy |
| 5. INITIATIVE<br>Consider his success in going ahead without being told every detail: his ability to make practical suggestions for doing things in a new and better way | Very self-starting and self-propelling | Moderately self-propelling | | Follower and routine worker | Needs constant supervision and direction |

| | | | | | |
|---|---|---|---|---|---|
| **6. Coöperation**<br>Consider his success in effectively coöperating with his subordinates, coordinates and superiors | Stubborn and narrow-minded | Difficult to handle | | Gets along well with others | Highly co-operative |
| **7. Knowledge of Work**<br>Consider present knowledge of job and matters related to it | Complete | Well-informed | Moderate | Incomplete | Deficient |
| **8. Dependability**<br>Consider his ability to follow directions given without supervision | Always can be depended upon | Usually dependable | | Has to be watched | Undependable |
| **9. Administrative Qualities**<br>Consider his success in directing the work of others | Very successful in developing a harmonious working group | Moderately successful in developing harmony | | Some evidence of friction | Antagonizes his group |

Remarks:

How long have you known this man?

Is he ready for advancement now?

If ready for advancement now, for which position is he best qualified?

Signed_____

_____ Title

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Figure 10—Analysis Form for Measuring and Rating the Ability of Members of the Lower Supervisory Group

or absent. Such a template, on a reduced scale is shown in Figure 11. The transparent template is placed directly over an analysis, the values of the check marks on the horizontal lines are read on the scale, entered on the right of the form, and then totaled. It is important to note that, while the mechanics of the system require that numerical values be computed for each of the abilities or characteristics,

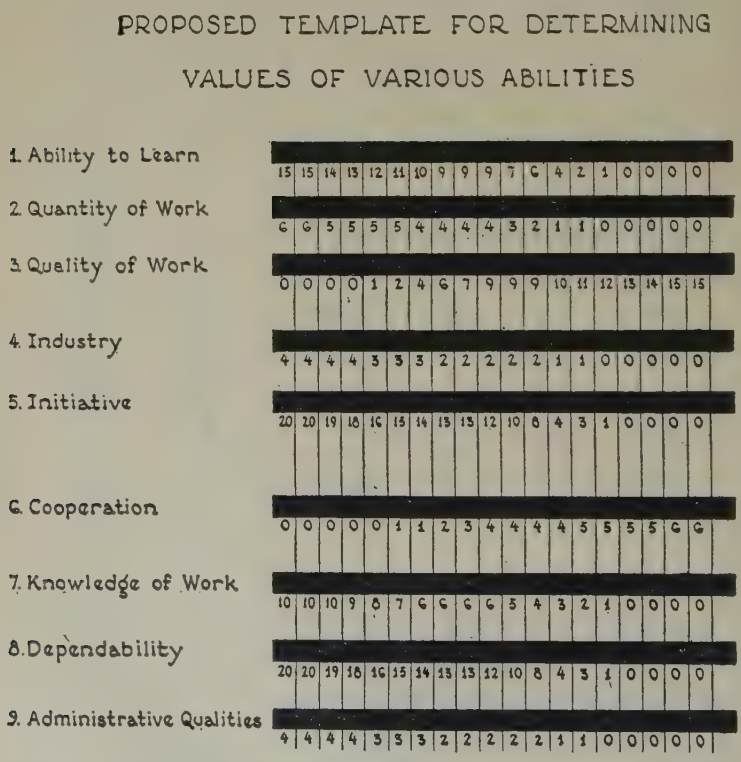


FIGURE 11—SCALE (REDUCED SIZE) TO BE LAID OVER THE FORM SHOWN IN FIGURE 10 TO SUPPLY THE WEIGHTING FOR THE VARIOUS QUALIFICATIONS ANALYZED

based upon the degree to which such an ability or characteristic is possessed, this evaluation is made only to determine into which of three broad groups—plus, average, or minus—an individual is classed, and not for the purpose of developing a highly refined numerical rating scheme. Some methods call for a finer division, such as a five-point rating—superior, above average, average, below average, or poor. The impossibility of placing a highly refined numerical value on any individual, however, should be realized.

These analyses should be made at fixed intervals—not less than six months, and not more than one year apart—and, as will be explained later, each individual is to be reported on by at least three qualified raters. From the individual reports a composite report should be prepared, which will constitute a record of the man's progress and development. The composite record serves as a diagnosis, at the moment, of the outstanding merits, or the shortcomings, of the individual, for the use of those who are responsible for his development. The foregoing analysis applies to the group known as the lower supervisory forces.

11. *Measuring the abilities of the higher administrative group.*—For the final, or third group, including all men above the levels of the second group, a different kind of analysis is required. The question of how well the individual is functioning in his present position is still important, but more important is the question of how well he may be qualified for higher

ANALYSIS OF LINE AND STAFF EMPLOYEES OF THE HIGHER SUPERVISORY AND EXECUTIVE GROUP

Name
Department — Title — Date — Analysis by
Area — How long in present position

1. MENTAL EQUIPMENT

(a) Organized Mind

Consider his ability to assemble facts and reason out a course to be pursued—

| | | | | |
|---|---|---|---|---|
| Orderliness of mind | Excellent | Good | Fair | Scatter-brained |
| Soundness of judgment | Excellent | Good | Fair | Reaches unsound conclusions |
| Rapidity of decision | Excellent | Good | Fair | Can't decide |
| Finality of decision | Excellent | Good | Fair | Vacillating |

(b) Imagination

Consider the extent to which his knowledge and recognition of trends—in and out of the business—will lead him to exercise imagination in new fields of effort—

| | | | | |
|---|---|---|---|---|
| Knowledge of interior trends | Excellent | Good | Fair | Superficial |
| Knowledge of exterior trends | Excellent | Good | Fair | Superficial |
| Ability to recognize the problems likely to arise from these trends | Excellent | Good | Fair | Unimaginative |
| Ability to solve present problems in new ways | Excellent | Good | Fair | Lacks originality |

(c) Flexibility

Consider his success in adapting himself and his organization to changing routines, conditions, etc.—

| | | | | |
|---|---|---|---|---|
| Personal attitude toward changes | Excellent | Good | Fair | Narrow-minded |
| Promptness with which he changes his organization to fit changed conditions | Excellent | Good | Fair | Standpatter |

(d) Sense of Values

Consider his ability to recognize the relative importance of several problems so that they can be solved in proper sequence—

| | | | | |
|---|---|---|---|---|
| Sense of proportion | Excellent | Good | Fair | Plays pet ideas |
| Thinks in fundamentals | Excellent | Good | Fair | Buried in detail |

(e) Initiative

Consider his ability to think and act for himself—

| | | | | |
|---|---|---|---|---|
| Independence of thought | Excellent | Good | Fair | Needs direction |
| Self-reliance in action | Excellent | Good | Fair | Lacks nerve |

2. Administrative Ability

(a) Consider his success in interpreting plans and policies to his subordinates—

| | | | | |
|---|---|---|---|---|
| Ability to convey thoughts clearly and concisely—orally and in writing | Excellent | Good | Fair | Befogs the issue |

(b) Consider his success in imbuing his subordinates with his ideals and aims so they may make them theirs—

| | | | | |
|---|---|---|---|---|
| Inspires confidence | Excellent | Good | Fair | Antagonizes |

Figure 12a—Form for Analyzing and Rating the Abilities of Members of the Higher Executive Groups

(c) Consider his success in developing and advancing subordinates—

| | | | | |
|---|---|---|---|---|
| Judgment of men | Excellent | Good | Fair | Fooled by superficialities |
| Delegation of authority and responsibility | Excellent | Good | Fair | Holds absolute control |
| Consults with subordinates | Excellent | Good | Fair | Keeps everything to himself |

3. PERSONALITY

(a) Consider his attitude toward opposing judgment—

| | | | | |
|---|---|---|---|---|
| On the part of superiors | Excellent | Good | Fair | Outwardly compliant |
| On the part of coordinates and subordinates | Excellent | Good | Fair | Intolerant |

(b) Consider his ability to sense probable reaction to his personal action—

| | | | | |
|---|---|---|---|---|
| Immediate effect | Excellent | Good | Fair | Indifferent |
| Ultimate effect | Excellent | Good | Fair | Narrow outlook |

4. NERVOUS REACTION

(a) Consider his mental processes under stress of emergency or unusual conditions—

| | | | | |
|---|---|---|---|---|
| | Excellent | Good | Fair | Goes up in the air |

Remarks:

Is he ready for advancement now?
If ready for advancement now, for which position is he best qualified?

Signed_____

_____Title

FIGURE 12b—SECOND PAGE OF THE RATING FORM SHOWN IN FIGURE 12a

administrative work. The qualifications for administrative success are less tangible, and less susceptible of reduction to any numerical basis, than the abilities proposed for judging the lower group. The man's qualifications must be considered not as individual qualities, but as parts of a whole which make him fit, or unfit, for administrative success. We are more concerned with relating him exactly with each other man in the group, and concluding that he is the best, or next best, and so on. These considerations, together with the much smaller number to be analyzed, make it desirable and feasible to use a questionnaire based not on categorical answers to questions, but on a description of the man, which will include consideration of all the qualities that are believed to be essential in a successful administrator. Such a questionnaire is illustrated in Figures 12a and 12b, which should be filled out annually.

While, in general appearance, the form proposed is similar to that suggested for the lower supervisory group, the different arrangement is adopted because it appears to lend itself better to a simplified process of analysis. In this broader consideration of human qualities it probably would not be well to attempt to place numerical values on the several qualities, and perhaps no good purpose would be served by so doing. As in the case of the analysis form for the lower group, at least three reports will be made for each individual, to assure the validity of the results. Because no classification of the group is contemplated,

however, no composite analysis will be prepared, the individual reports being used as a basis for discussion among the group of higher executives who are responsible for making appointments, or confirming the recommendations of subordinates.

12. *Distinction between the two processes of analysis.*—It is desired to emphasize the distinctions between the two processes described above. The object of the first process is to classify a large group—the lower supervisory force—into plus, average, or minus classes, to determine the comparative number in each class, to provide a methodical basis for the encouragement and direction of the plus and average classses, and the treatment of the minus class, and to compel a periodic study of human material. A secondary object is to compel a proper relationship between salary treatment and ability.

The object of the second process—applied to the higher supervisory group—is to determine the relative merits of individuals who are immediate candidates for administrative responsibilities and to secure the selection of the best man, regardless of his location within the organization.

Any attempt to analyze men must depend for success upon:

(a) A proper selection of those making the analyses
(b) A complete understanding of the purpose of the analyses and how they are to be used
(c) Determination to analyze with deliberation and without bias
(d) Use of the results

It will be obvious that, if the results that are hoped for are to be accomplished, the analyses must be made by those who are in a position to furnish the most reliable data. The fundamental purposes of the reports, as stated above, must not be overlooked. An incomplete, or biased, analysis may not only be unfair to the man being judged, in that it may unduly affect his progress, but also it will indicate the inability of the person making the analysis to arrive at sound conclusions. One of the important by-products of these studies will be to develop the relative ability of the supervisory group to analyze, on a fair basis, the capabilities of their subordinates.

13. *Reducing the element of error.*—In any plan of analyzing intangible abilities, the element of error is bound to be higher than when tangible abilities are being measured. It is infinitely more difficult to measure the success with which a man develops a spirit of coöperation in his group than to measure the production of that group. The first factor is largely a matter of observance and opinion; the second is a measurable quantity. To reduce this element of error, it is essential that there be available as many opinions regarding the ability of each man as may be possible within reasonable limits. A minimum of three must always be obtained. It is doubtful whether it is necessary to exceed five, except in unusual cases. The important thing, however, is not the number of opinions, but the true worth of these opinions. It is better to have a few well-considered opinions, based

on thoughtful judgment, than to have a larger number, some of which are based on a "hunch" or are colored by personal bias.

Since the analysis must be made only by those fully qualified, obviously it is not possible to set up standard lists for each grade in the organization. Certain general principles, however, can be stated regarding the selection of analysts:

(a) The man's immediate superior should always be one of the analysts.
(b) Men in coördinate positions should rarely, if ever, be included.
(c) Men in subordinate positions should never be included.
(d) Men, two or more steps higher in the organization, may be selected if they know the man, and if they believe themselves to be qualified.
(e) Men in other departments, even if in coördinate positions, may be selected if it is believed that their opinions will be of value in the final result.

14. *Training the men who make the analyses.*— The training of the men who are to make out the reports will be far from simple. There is no question but that in many cases the preparation of the report on the forms will be a laborious job for inexperienced raters. Up to the time this responsibility is placed on him, it is probable that the supervisor has not been forced to consider the extent to which his subordinates possess the several abilities. In the beginning, this fact will probably lead to ill-considered analyses on

the part of men whose analytical abilities are not very great.

From the experience of many companies using a form of analysis similar to the one being discussed, it is clear that the installation of any such plan requires not only considerable training of the people who are going to do the rating, but also constant supervision after the plan has been installed. Apparently there are many pitfalls which may affect the validity of the results. Some of these are:

(a) A tendency to allow the general impression of an individual to affect, either favorably or unfavorably, the evaluation of specific traits
(b) A tendency to overrate persons whom one has known for a considerable period of time, or with whom one is on terms of intimacy

It appears to be essential that, before any analyses are made for record purposes, each rater should be coached in what to do. The spirit in which the analyses are to be made should be explained, and sample reports prepared and their results compared and discussed to develop favorable, or unfavorable, tendencies on the part of the individuals making the analyses. The various processes involved in securing and summarizing reports, tabulating results by departments, and comparing the results, make it essential, for the ultimate success of the plan, that this work be under centralized control, preferably in the personnel department. It would assure more uniformity, and probably be more economical, to have

all work handled in this manner. Final results could be tabulated in such a manner as to serve best the needs of the departments. By careful planning, the work could be arranged so there would be a constant, even flow of reports throughout the year to the personnel department. In this way a minimum organization would be needed.

15. *Men who fail to progress.*—One of the charges frequently made by men who fail to progress as they think they should is that their deficiencies have not been pointed out to them, and that they have been led to believe that their work is satisfactory until suddenly they are told that it is not. This charge is often true, and it is due principally to three causes:

(a) Lack of courage on the part of the supervisors and a willingness to do the easy thing rather than an unpleasant thing
(b) Lack of ability to formulate and express, in words that will be clear to the listener, the thoughts that it is desired to convey
(c) Lack of conviction on the part of the subordinate that the superior is capable of appraising him correctly, and a feeling that others would appraise him more favorably

The analysis reports, over a period of time, will furnish reasonably conclusive evidence as to the shortcomings of any individual. They will furnish each supervisor with material he can use in discussing with his subordinate the weak points developed by the reports. In some cases it may be desirable to give the subordinate a copy of the composite report for his

own use and study. This plan, while it must be used with caution, to avoid the possibility of developing the points of view of the individuals who prepared the analyses, and thus embarrassing them, has distinct merit in meeting the problem just described.

It is clear that job specifications will be of great aid to the supervisor making this human analysis by permitting him to relate performance and other characteristics to the fundamental elements that go to make up the total demand upon the individual's efficient performance. One of the most desirable results that can come out of a rating analysis such as has been discussed in the preceding pages is that it calls for an intimate consideration on the part of the supervisor of the qualifications of his subordinates.

## REVIEW

Outline a few important points that should be covered in instructing the new employee regarding his job.

Explain the advisability of clearing up possible misunderstanding on the part of the new worker.

How should the worker be introduced to his job?

List the four primary motives in the recognition of individual merit.

Outline the groups into which the personnel of an organization should be divided for the application of an individual rating plan.

Into what classes do members of the lower supervisory group fall under a rating plan, and what factors should be examined in each class?

Comment briefly on the make-up and use of the analysis form for line and staff officers below the district head grade.

Upon what factors does an attempt to analyze men depend for success?

List the general principles regarding the selection of analysts.

# CHAPTER XX

## DUTIES OF THE PERSONNEL DEPARTMENT—PLACEMENT AND PROGRESS (*Continued*)

1. *Measuring the capacity of the worker.*—On the subject of analyzing and rating employees, it was stated in the preceding chapter that perhaps more consideration was being given in this field to the supervisory and executive forces than to the general forces. This fact is true only in the sense of attempting to discover among supervisors those qualities that demonstrate capacity for leadership. Ever since the pioneering work of Frederick W. Taylor, intensive study has been given to measuring accurately the productive output of the worker, and compensating him on the basis of that production. In a very real sense, then, such measurements are a rating of the capacity of the worker. The varying capacities of the worker are compensated for by an increased wage for higher production.

All the undertakings described in a previous chapter, under the subject of incentives, are real attempts to recognize merit. The piece-rate method of payment, the standard-hour method, the day-rate plus bonus method are illustrations of successful methods of discrimination among workers, by favoring higher

proficiency. In a number of enlightened industries, however, refinements of method have been developed that bring recognition to the worker possessing other qualities of great value, in addition to that of pure productivity.

2. *An effective rating method.*—Probably the best illustration of a system of rating employees in the general forces that yet has been proposed appears in an article written by Howell Cheney, of Cheney Brothers, entitled "Credit Rating," and published by the National Industrial Conference Board in one of its service letters on industrial relations. The report itself is brief and the writer is privileged to quote it:

"An increasing amount of attention is being devoted to various systems of rating employees according to their abilities and value of their work. These systems not only enable promotions, transfers, layoffs, and discharges to be made intelligently, but are recognized to be of great value in establishing a basis for compensation in proportion to proven ability.

"The plan which follows is adaptable to a system of compensation based upon a day rate, plus a bonus for the accomplishment of a time-studied task. The plan requires careful classification of all jobs according to the relative degrees of skill, responsibility, coöperation, and difficulty of working conditions involved in each task. It also requires the setting of maximum and minimum hourly rates in view of such classifications.

"Where these classifications have been determined, an employee is practically enabled to adjust his basic hourly rate by his own efforts as far as the minimum and maximum rates that have been set for his particular job allow him. Since the classifications of jobs are known, they also clearly point the way for promotion to more responsible jobs.

"The maximum rate in each class is, on an average, one-third greater than the minimum. The minimum, as stated, is determined by the relative degree of skill, responsibility, coördination or coöperation, and the severity of working conditions involved.

"This type of credit rating, therefore, depends upon accurate classification of jobs, as well as upon the measuring of production and quality, and the keeping of continuous records of service, attendance, and certain other factors.

"The minimum rate set for the job is paid to employees having a credit of fifty points and the maximum rate is paid, with certain exceptions noted later, for a credit of one-hundred points. Thus, the difference between the minimum and maximum rates, which is called 'the split,' is actually paid only for points in excess of fifty. This is because it has been found practical for a 'green' employee with two months' service to secure the first fifty points.

"As an illustration, if an employee had eighty points of credit rating on a job that had minimum and maximum classification rates of 45 cents and 60 cents per hour, respectively, his rate would then be-

come 45 cents (minimum) plus $^{3}\%_{50}$ of 15 cents (the split). The resulting rate would be 45 cents plus 9 cents, or 54 cents per hour.

"The factors that are considered in the credit rating, together with the maximum points offered for each factor, are variable according to the requirements of the job, but might be typically as follows: service, 20; attendance, 20; quality, 25; productivity, 25; and community status, 10.

"In addition to the foregoing factors, which give employees the opportunity to obtain one-hundred points, it is possible in certain cases to obtain as a premium an additional twenty points for versatility and an additional ten points for certain types of cooperation.

"(a) *Service.*—The credit for continuous service starts with one point for approximately two months of service and increases to twenty points for twenty years of service. The employee may acquire ten of these points by the end of three years, fifteen points by the end of eight years, and eighteen points at the end of fifteen years. Since the credit is given as an encouragement for continuous service and to discourage turnover as much as possible, adjustments are made for broken service.

"(b) *Attendance.*—Inasmuch as it is recognized that regularity of attendance is a factor in determining the worth of an employee to a company, and is also an index to physical condition, a credit not exceeding twenty points is given for perfect attendance

during a three months' period. This credit starts with one point for 50 per cent attendance and increases to five points for 70 per cent, ten points for 85 per cent, fifteen points for 95 per cent, and twenty points for 100 per cent attendance.

"(c) *Quality.*—The percentage of quality is measured by scales for mechanical, or productive, quality that have been previously set, and ranges between the following limits:

(1) No credit is given for quality below which all regular production bonus is deducted.
(2) A maximum credit of twenty-five points is given for the highest degree of quality attainable.

"The line joining these two points is a straight line and the number of points allowed at any time depends on the percentage of quality which the employee has attained. Provision is made so that the department superintendent may assign arbitrary quality values under special circumstances when a regular rating scale is not considered applicable.

"(d) *Productivity.*—The credit given for productivity takes into account the actual performance on the job and also the size of the job. For illustration, if an employee exceeded the production requirement of his task by 20 per cent and the size of his job was 80 per cent, his percentage of productivity would be 120 per cent times 80 per cent, or 96 per cent. The credit for productivity starts at zero, reaching twenty-five points for 100 per cent productivity and

a maximum of thirty points for 125 per cent productivity.

"(e) *Community status.*—Ten points of credit are given as a maximum for the following factors that influence the employee's responsibility and stability in the community:

| | |
|---|---|
| (1) Ability to speak English | 2 |
| (2) Ability to read English | 1 |
| (3) Ability to write English | 1 |
| (4) Taxpayer on real estate in the town or resident of the town for five or more years | 2 |
| (5) Voter in the town | 2 |
| (6) Citizen of the United States | 2 |

"These points of credit are given because it is felt that they indicate stability of residence as well as of employment, and are to a certain measure indicative of the fact that the employee is at least making an effort to become a stable citizen and is accepting the community responsibilities in common with the company.

"As has already been indicated, it is possible for an average employee to attain one hundred points of credit under the foregoing factors. However, it was felt that these factors did not encompass certain qualities of service under special conditions, and hence it was decided to consider two other factors, namely, versatility and coöperation.

"(f) *Versatility.*—Inasmuch as it is advantageous to maintain a mobile force of employees who are able and willing to do distinctly different operations, a

maximum of twenty points may be given for versatility. The actual credit given depends entirely on the necessity for versatility in two different operations as well as the skill involved. For example, a certain combination of jobs might be rather easy to learn and would therefore give the employee only five points of credit, whereas the ability to learn two different tasks that were difficult to perform and especially valuable to the company might give the employee as high as twenty points for versatility. To hold his versatility rating, an employee must perform more than one job satisfactorily within a three months' period, and must not have refused to do the work in question within this period.

"(g) *Coöperation.*—It is recognized that there are individual cases where the employee has performed some special act of coöperation which makes him more valuable to the company, and hence it is possible for an employee to obtain a maximum of ten additional points for productive types of cooperation. Points are given under this heading for the development of new ideas, assistance in originating and putting into execution new methods, in studying tasks, trying experiments and supervision.

"Just as it may be advisable to reward an employee for special acts of coöperation, so it may be equally advisable to make deductions from credit rating for extreme cases of insubordination, refusal to coöperate, etc. Hence, it is possible for the employee either to receive additional credits under this

heading, or to suffer a deduction from his other points for gross misconduct. It should be recognized that credit for versatility and conduct is given only in special cases, and a small percentage of the employees receive these credits.

"The credit rating period extends for three months, and at the end of each period the credits which are established under the various headings are totaled and the employee's basic rate is determined between the minimum and maximum rates. If the credit rating indicates that the employee is entitled to an increase in rate, he receives this automatically. If, on the other hand, the credit rating indicates that the employee should receive a deduction in rate, the matter is discussed with him and he is instructed that, unless he is able to readjust his credit rating within the next three months, a deduction will be put into effect thereafter. In other words, it is possible for an employee to readjust his credit rating upward and receive an increase in pay four times each year; on the other hand, no more than two adjustments downward can be made in the same period.

"It is to be understood that the credit rating record is referred to in every case of promotion, transfer, lay-off, or discharge, and that an employee is not solely dependent in these cases upon the unchecked opinion of the foreman."

3. *Need for effective rating methods.*—There can be no question that this is a conscientious effort to

measure all the abilities and capacities of the workers and to compensate them in accordance therewith. It is, in reality, a challenge to all industries that have the welfare of their employees at heart to develop similar methods for the recognition of the interests, abilities, and capacities of their workers.

4. *Responsibilities of the personnel department:*— Throughout the preceding discussion of the duties and responsibilities of the personnel department, and particularly in regard to the functioning of the employment division, there has been stressed the importance of making comprehensive studies to check the value of actions taken, to determine the interrelationships of different elements in human behavior, to evaluate the factors of human experience, and to study the progress of individuals within the organization. The employment division should be so organized as to perform this important function proficiently, presenting the results of studies in convincing form, based on the best statistical methods. This form of study should consist of tables, diagrams, charts, and all of the numerous devices that the efficient statistician uses in laying facts before the busy executive.

The most useful statistical tool to use in the study of individuals in the personnel of an organization is perhaps the scatter diagram. The advantage of a scatter diagram is that each individual in the group being studied is located definitely on the chart, in accordance with the criteria adopted, and that each

is placed in relationship to every other individual in the group. The selection of criteria is governed by the objective of the study and the information desired.

5. *Charts as aids in studies of individual progress.* —During the discussion of the employment procedure, many questions were raised as to the validity of the factors used which influenced the judgment and decision of the employing agent. Any one of these factors, or a number of them, may be related to a study of the future progress, or lack of progress, of the individuals employed. A straight study of progress, irrespective of the conditions under which individuals were employed, is most enlightening and raises many questions concerning the individual's location on a progress chart. The scatter chart gives opportunity for the study of individuals and also forms the basis for graphic presentations in more generalized form. As an example, the chart shown in Figure 6 on page 183, giving the effect on business progress of certain elements in college experience, was derived from a series of scatter diagrams.

Although the illustrations that follow present very practical problems, they are given merely to illustrate the method of preparing scatter diagrams. The criteria used have no particular significance. The major criteria employed in these instances are age, salary, and length of service. Let us assume that the group studied on the scatter diagram shown in Figure 13 is a supervisory group of an important unit in a large

industrial concern, one of the divisions of a large department in the organization. In the pyramid of organization, Figure 1, page 4, the chief of this division would appear on the fifth level down from the apex. It should be mentioned in passing that data concerning the head of the division does not appear on the scatter charts presented in the accompanying diagrams.

6. *The age-salary chart.*—The first chart is built up by using as coördinates the years of age of the various members of the supervisory group and their respective salaries. The curve showing the median of the whole group, in effect, shows the progress of the average men of the group. In other words, for a given age there are just as many men above the median as there are below. A critical study of the figure will indicate minor variations from this control due to the necessity of smoothing the curve, but this median gives a reasonably accurate picture of the progress of the average man.

Let us glance at just a few of the interesting facts that the plotting of such a chart gives us. In studying the average progress of the group, as shown by the median, we find that at twenty-five years of age the annual salary is about $2,100, while at thirty-five years it is nearly $3,000, and at forty-five years it reaches almost exactly $3,500. The first question that arises is whether this general rate of progress is reasonably satisfactory, considering the economic and social conditions in which this group finds itself.

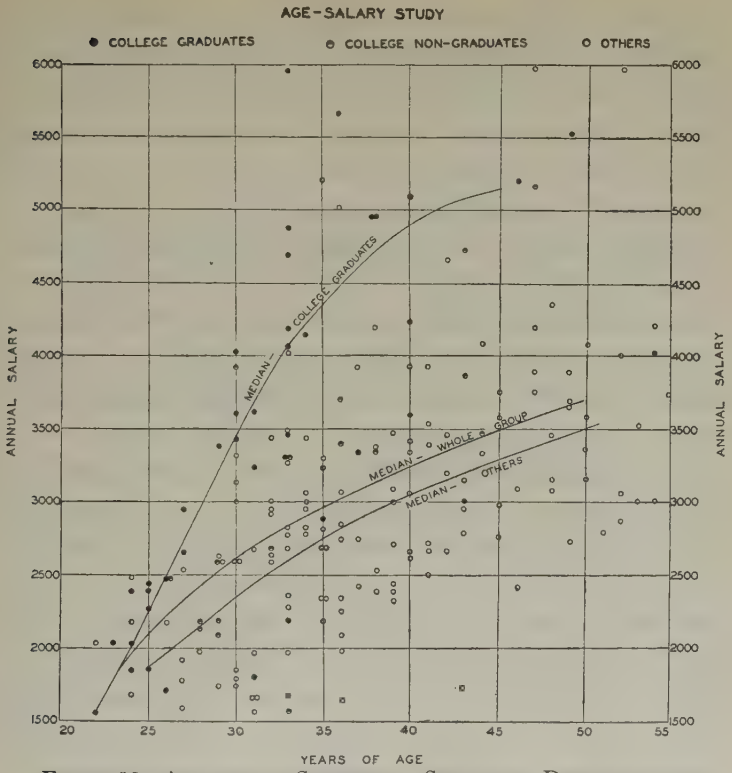


FIGURE 13—ANALYSIS OF SUPERVISORY STAFF OF A DIVISION OF AN INDUSTRY FROM THE STANDPOINT OF PRESENT SALARY EARNED RELATIVE TO THE ATTAINED YEARS OF AGE OF THE MEN

When it is considered that in the make-up of this group the largest number in any one grade are first-line foremen, the average progress might be deemed favorable to the members of the group. Progress is relative, however, and if this rate compares unfavorably with that of men in like grades in other industries in the community, something should

be done to adjust the salary scale to meet existing conditions. This factor indicates the desirability of another broad study of general salary conditions. Much less is known of salaries for supervisory groups than is known of wages in the crafts.

Another striking condition shown on the chart is the wide spread in remuneration received among men in the same age groups. One of the most conspicuous of these variations comes in the thirty-third year age group where the salary spread is from a minimum of $1,600 annual salary to $6,000. One of the values of a progress chart of this character is that one can see at a glance the number of men who are above average and below average in rate of progress.

7. *Assisting the below-average group.*—The situation that should give all executives real concern is the slow progress of the below-average group. In particular, those men who are clinging closely to the base line of $1,500 and who are of considerable age should be given critical attention to determine the causes of their failure. On the chart we discover a man who is forty-three years old and receiving an annual salary of $1,700. He stands alone on the chart far below any other member of his age group. It has been indicated that the analysis and rating of men would contribute to the discovery of reasons for failure. So in studies employing charts of this character, attention is drawn forcefully to men who have failed to progress. What are the reasons? A few possibilities may be: incompetency, oversight, or mal-

adjustment. The consideration of the interesting details that this chart develops could go on endlessly, but it is believed that sufficient comment has been made to demonstrate the value of a general progress study.

8. *Effect of educational background.*—Aside from general progress, subsidiary criteria have been used to indicate the effect of educational background on progress. The group used in this subordinate study consists of college graduates, college non-graduates, and others, or non-college men. It will be noted at once, from the median of college graduates, that their progress, on the average, is more rapid than that of the men who have not had the advantage of a college education. Yet, the chart shows that the progress of non-college men of ability may be rapid. One finds two non-college men, of the age of thirty-five or thereabouts, receiving above $5,000 annual salary. Of three men on the $6,000 line, two are non-college men.

In considering median progress, we find the college man approaching $3,500 annual salary at thirty years, with about $4,800 at forty years. Even among college men, however, one man aged thirty-one years is receiving only $1,800 annually. Again comes the question, Why? The median showing progress of the non-college man is necessarily lower than the median of the whole group. This condition, again, might be explained because the great majority of the men studied are in the classification of first-line fore-

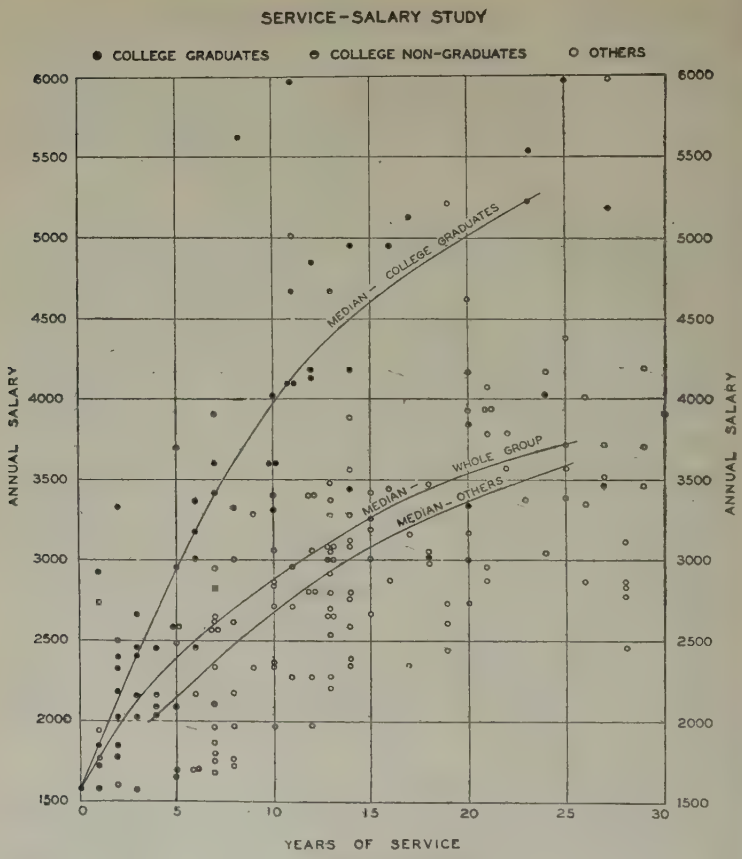


FIGURE 14—ANALYSIS OF MEMBERS OF THE DIVISION SHOWN IN THE CHART OF FIGURE 13 FROM THE STANDPOINT OF RELATIONSHIP OF PRESENT SALARY TO YEARS OF SERVICE

men, which position gives them satisfaction in their economic and social environment.

9. *The service-salary chart.*—An age-salary study of progress seems satisfactory in giving a measure

of achievement in the whole life experience of the individual, but executives may be more interested in a study of progress on the basis solely of service within the organization. Such a service-salary study is shown in Figure 14. Again, on this chart is shown the effect of educational background as well as a study of general progress. There is not a great change in the general appearance of the data, the several medians bearing approximately the same relation to each other. In general, the groupings of the individuals plotted draw closer to the median of the whole group than do those in the age-salary study. This distinction, however, is not very marked. Comparisons are not necessary between these two types of study shown in Figures 13 and 14, but it might be noted that at twenty years of service the median of the whole group in Figure 14 passes that vertical at about $3,600 salary. This compares closely with the forty-five-year age group in the age-salary study of Figure 13, thus giving a small indication of the relationship between age and service.

10. *Chart of relative age at employment* vs. *salary.* —Frequently, the question arises whether or not it is a wise personnel policy to employ persons early in their life careers and to train and develop them for the specific work in the industry, or whether it is better to employ persons who have gained their experience in some other industry and adapt that experience to the needs of the organization. In other words, is it desirable to employ people at an early

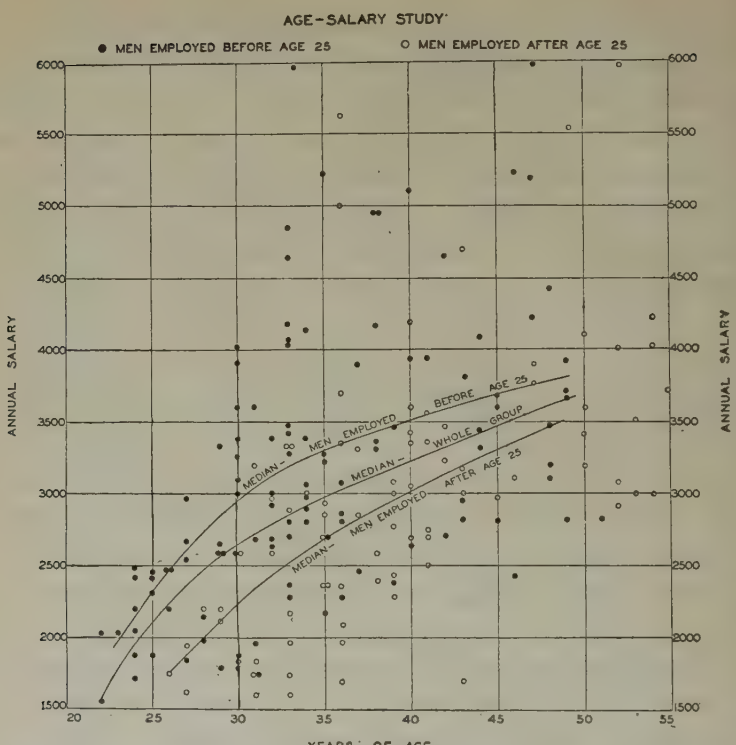


FIGURE 15—ANALYSIS OF MEMBERS OF THE SAME DIVISION AS CHARTED IN FIGURES 13 AND 14, SHOWING RELATIONSHIP OF PRESENT SALARY TO THE ATTAINED AGES OF THE MEN, BUT DIFFERENTIATING BETWEEN THOSE UNDER AND THOSE OVER 25 YEARS OF AGE AT THE TIME OF EMPLOYMENT

age, or those who have become more mature? Making a third study of this same group, as shown in Figure 15, using the same criterion of progress—salary—against a grouping of men employed before age twenty-five, as compared with the group of men employed after age twenty-five, we gain interesting information. The median of the whole group is

identical, of course, with that in the first study, but it is very apparent, in observing the median of men employed before age twenty-five, that their progress is distinctly better than that of men employed after age twenty-five. The median of the younger group continues consistently above the median of the whole group, while the median of those employed at a greater age falls below the median of the whole group.

On an age basis, it may be observed that at age thirty there is a difference of salary between the two groups of almost $1,500. There is a tendency for this discrepancy to decrease, until at age forty it is about $1,000, while at forty-five it reduces to approximately $800. It would seem that during the most productive years of a man's life the difference is greatest. There must be reasons, of course, for this marked difference in progress between these two groups, which should be given careful consideration, and which should be related to conditions existing in a given organization. The most apparent conclusion that could be drawn from this particular study is that men who come early into the organization, and remain permanently with it, gain a valuable background of cumulative experience, all of which contributes definitely to their progress. On the other hand, the members of the group who joined the organization later in life find it difficult to capitalize fully on their previous experience in other lines of endeavor.

HENRY L. DOHERTY & COMPANY
SIXTY WALL STREET, NEW YORK

# APPLICATION FOR EMPLOYMENT

PERSONNEL DEPARTMENT
EMPLOYMENT DIVISION

DATE_____

## PERSONAL

| | | | | |
|---|---|---|---|---|
| NAME (LAST NAME FIRST) | | | ADDRESS | |
| PHONE | DATE OF BIRTH | PLACE OF BIRTH | CITIZENSHIP | ANCESTRY |
| MARITAL STATUS ☐ SINGLE ☐ MARRIED ☐ WIDOWED ☐ DIVORCED | NUMBER OF DEPENDENTS } FULLY _____ PARTIALLY | HOW RELATED? | YOUR FATHER'S BIRTHPLACE? | |
| YOUR MOTHER'S BIRTHPLACE? | ARE YOU PHYSICALLY HANDICAPPED? IF SO HOW? | | WHEN DID YOU PASS YOUR LAST PHYSICAL EXAMINATION? | |
| WILL YOU SUBMIT TO A PHYSICAL EXAMINATION AT OUR EXPENSE? | CAN YOU BE BONDED AT OUR EXPENSE? | HAVE YOU FRIENDS OR RELATIVES IN OUR EMPLOY? | WHO? | |
| WHAT PROMPTED YOU TO SEEK EMPLOYMENT HERE? | | | WHAT IS YOUR RELIGION? | |
| OF WHAT CLUBS OR SOCIETIES ARE YOU A MEMBER? | | | OFFICES HELD? | |
| IN AN EMERGENCY WHOM SHALL WE NOTIFY? | ADDRESS | PHONE | HOW RELATED? | |
| OR | ADDRESS | PHONE | HOW RELATED? | |

## EDUCATION

| | | | | | |
|---|---|---|---|---|---|
| HIGH SCHOOL | ADDRESS | YRS. ATTENDED | GRADUATE? | DATE LEFT | HONORS |
| COLLEGE | ADDRESS | | | | DEGREE |
| OTHER | ADDRESS | | | | DEGREE |
| WHICH STUDIES INTERESTED YOU MOST? | | WHICH THE LEAST? | | | |
| EXTRA-CURRICULAR ACTIVITIES | | | | | |

## EXPERIENCE

INFORMATION REGARDING PRESENT BUSINESS CONNECTIONS WILL BE TREATED CONFIDENTIALLY UNLESS YOU HAVE ACCEPTED EMPLOYMENT WITH THIS COMPANY OR GIVEN US PERMISSION TO INVESTIGATE SUCH CONNECTIONS. PARTICULAR CARE SHOULD BE EXERCISED TO SEE THAT ACCURATE DATES ARE GIVEN.

| PRESENT EMPLOYER | NO. STREET | FROM | POSITION HELD | SALARY STARTING | REASONS FOR LEAVING |
|---|---|---|---|---|---|
| | CITY STATE | TO | | LAST | |

| | | |
|---|---|---|
| HOW SOON COULD YOU ACCEPT A POSITION WITH US? | MAY WE COMMUNICATE WITH YOUR PRESENT EMPLOYER NOW? | DO YOU KNOW OF ANY REASONS WHY YOUR REFERENCES MIGHT BE UNSATISFACTORY? |

**REFERENCES**

PLEASE GIVE THE NAMES AND ADDRESSES OF FOUR PERSONS OF GOOD STANDING TO WHOM YOU ARE NOT RELATED AND BY WHOM YOU HAVE NOT BEEN EMPLOYED PLEASE INCLUDE YOUR CLERGYMAN.

| NAME | OCCUPATION | NAME OF FIRM WITH WHOM CONNECTED | ADDRESS OF FIRM OR RESIDENCE |
|---|---|---|---|
| 2 | | | |
| 3 | | | |
| 4 | | | |

**MISCELLANEOUS**

| | | | |
|---|---|---|---|
| WHAT KIND OF WORK DO YOU DO BEST? | | SECOND BEST? | |
| WHAT POSITION ARE YOU APPLYING FOR? | | | WHAT SALARY DO YOU EXPECT? |
| ARE YOU WILLING TO DEVOTE FURTHER TIME TO STUDY? | OF WHAT NATURE? | | |
| IF YOU ARE UNDER 21 YEARS OF AGE KINDLY ANSWER THE FOLLOWING QUESTIONS. | | | |
| IS YOUR FATHER LIVING? | HIS OCCUPATION? | IS YOUR MOTHER LIVING? | HER OCCUPATION? |
| DO YOU LIVE WITH YOUR PARENTS? | IF NOT WITH WHOM? | WHY? | |

**IMPORTANT**

EMPLOYMENT HERE IS CONTINGENT UPON OUR RECEIPT OF SATISFACTORY INFORMATION FROM YOUR FORMER EMPLOYERS AND PERSONAL REFERENCES AS WELL AS YOUR ABILITY TO PASS SUCCESSFULLY A PHYSICAL EXAMINATION.

THIS APPLICATION IS NOT ONLY A FACTOR IN CONSIDERING YOU FOR EMPLOYMENT BUT IS ALSO KEPT AS YOUR PERMANENT RECORD IF EMPLOYED. PLEASE READ OVER THE DATA YOU HAVE GIVEN WITH THIS POINT IN MIND AND MAKE CERTAIN THAT ALL OF THE REQUESTED DATA HAS BEEN ACCURATELY AND COMPLETELY SUPPLIED.

PHOTO

NOTE: IF YOUR NAME HAS BEEN LEGALLY CHANGED SINCE LEAVING SCHOOL EITHER BY MARRIAGE OR OTHERWISE KINDLY PRINT YOUR ORIGINAL FAMILY NAME HERE_____

APPLICANT'S SIGNATURE_____

FIGURE 16a—APPLICATION FOR EMPLOYMENT FORM USED BY ONE OF THE LARGE PUBLIC UTILITY OPERATING COMPANIES

## HISTORY WITH HENRY L. DOHERTY & COMPANY

| EFFECTIVE DATE | ACTION | DEPARTMENT | DIVISION | SECTION | POSITION | GRADE | SALARY | COMMENTS ON ACTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

| EDUCATIONAL COURSES WHILE WITH H. L. D. & CO. | | | | | ADDRESS | PHONE |
|---|---|---|---|---|---|---|
| NAME OF SCHOOL | COURSE | DATE COMPLETED | GRADE | REFUND MADE | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | EXAMINATIONS | |
| | | | | | DATE / NAME / GRADE | INTERPRETATION |
| | | | | | | |
| | | | | | | |
| | | | | | | |

| IN EMERGENCY NOTIFY | ADDRESS | PHONE | HOW RELATED? |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

GENERAL REMARKS

FIGURE 16b—REVERSE SIDE OF APPLICATION FORM SHOWN IN FIGURE 16a

This brief analysis of the values that come out of intimate studies of the relationships of individuals to progress is given merely as an illustration of the value of statistical work in contributing to the well-being of employees through the gathering of facts and their right interpretation. These facts are important tools for management control.

11. *Importance of adequate personnel records.*— In concluding the discussion of the duties of the employment division of the personnel department, there remains only to emphasize the importance of preparing and maintaining adequate and accurate personnel records. The application for employment has been fully treated as a part of the employment procedure. As a matter of record, the application form becomes the fundamental document of the employee's record, and the beginning of the work history of the employee.

In Figures 16a and 16b appears an excellent personnel record, used by Henry L. Doherty & Company. The face of the permanent personnel record is the application for employment. In commenting on the application form, it has been stated that these forms used in industry are similar in structure, but vary considerably in detail. A comparison of this form with the one shown in Figures 7a and 7b will illustrate this variation. There is no space provided on this particular form, Figure 16a, to record the notes of the interviewer giving the basis of his decision in the process of selection. In using this form,

therefore, it would be necessary to make separate record of such notes.

The reverse of the application form, shown in Figure 16b, provides for the personal history of the individual with the company. There is provision for a continuous record for all changes in the position, grade, salary, and location of the employee. This form wisely emphasizes the development of the individual by making record of educational courses pursued while with the company and the completion of all examinations. This data, together with a number of items of administrative detail completes the historical record of the individual employee.

Another important record is that of the employee's physical examination, which will be discussed later, but which, as a matter of record, forms the beginning of the health history of the worker. The personnel manager and the employment manager should take infinite pains to insure that all information needed for full and complete consideration of the development, progress, and well-being of the employee is made a matter of permanent record. In the illustrations previously given of statistical studies, it will be observed that the basic information needed is available on the permanent personnel record of each individual.

## REVIEW

Describe briefly the provisions of the credit rating plan for workers that is presented in the Text.

Explain the aid that charts, or scatter diagrams, render in the study of individuals in an organization.

Outline the analysis of the age-salary chart presented in the Text.

State the effect that educational background appears to have on the progress of the individual.

Describe the service-salary chart illustrated in the Text.

Analyze the indications of the relative-age-at-employment *vs.* salary chart.

Make a brief critical analysis of the personnel record form in Figures 16a and 16b.

# CHAPTER XXI

## DUTIES OF THE PERSONNEL DEPARTMENT—TRAINING AND DEVELOPMENT

1. *Training and development of personnel.*—Throughout industry there is an infinite variation in the manner and extent in which opportunity is given to the personnel for training and development. In certain industries there is no realization of the need for training, and no opportunity is afforded to acquire it. Whatever is done in such cases is left to individuals in the supervisory force who have taken the matter up on their own initiative, and the program is carried on without executive guidance.

The writer well remembers at one time sitting on the roadside talking with an alert young foreman in charge of a construction gang. He asked the foreman how much time was required to develop a green worker to the highest grade of skill in his craft. The foreman stated that it was the general impression that it took seven years to train a worker to be highly skilled on the job. "But," said he, "if they would let me have my way, I could bring a man up to his highest skill in three years' time. I know because I have done it. But you have got to give all the time needed to his instruction." Going on with the in-

vestigation, the writer talked with an old-line foreman of another gang, asking the same question. The reply was that no man could become a highly skilled workman under seven years. When asked if that time could be speeded up by giving the worker thorough instruction, the foreman replied, "I have no time to instruct these men, we have got to get the job done. It is sink or swim with me, if they don't do the job they are fired." The first of these incidents illustrates the new attitude, and the second, the old, in the realization of responsibility for the development of men in industry. Foremanship training has done much to eliminate the old *laissez faire* attitude.

On the other hand, industries, in ever increasing numbers, are developing refinements in the educational process that, in a number of cases, make them fair rivals of schools and colleges in our educational system. They are convinced that in no way can they contribute more to the progress and prosperity of the business than in providing opportunity for the training and development of the members of the organization to their highest pitch of excellence. It is possible, in the brief space allotted, to present only points of view and the varying objectives set up by industry to attain these ideals in training. The responsibility for the development of the educational program lies with the personnel department, or the department of industrial relations, which, as will be shown in the following illustrations, should have a

well-organized training division with an educational director.

2. *A typical coöperative engineering program in the automobile industry.*—One of the best illustrations of a highly centralized, and, it might be said, formalized scheme of educational development within an industry is that established by one of the large automobile manufacturing corporations. This company has provided a well-equipped educational plant, known as an "Institute of Technology," and staffed by capable, experienced professors and instructors. The program of the institute is organized into four divisions. The coöperative engineering division makes a distinct contribution to higher education in the fields of mechanical and automotive engineering. The other three divisions are the automotive service, the "spare time," and the technical trades divisions. Included in this comprehensive program are opportunities of development for all grades of personnel in many different fields.

The purpose of the coöperative engineering program is to give young men training in both the theory of engineering and its practical application in the factory, so that they will be prepared, at the completion of their course, for positions in various phases of work in the industry with such a foundation that, as they gain experience, they may develop and qualify for more responsible supervisory or technical work. To insure that this training may be most effective, the course is conducted on the coöperative

plan, under which the student spends alternating periods in a correlated program of technical instruction at the institute and practical work in the plants.

The institute curriculum provides, for the first two years, a program designed to give a basic engineering training, followed by a third and fourth year program of specialization along any one of three sequences—product, industrial, or plant engineering. Throughout the whole course, definite terminal points are provided at the end of each year, dependent upon the ability, capacity and objective of each student. Not only is there this flexibility, but students may enter and carry on specific programs of varying lengths to supplement their previous training and experience. In all cases, attention is given to the direction of the training in both the plant and the institute along lines that will contribute most constructively to the preparation of the student for his future field of work.

3. *Scope and value of the course.*—An examination of the curriculum of the engineering division of the institute shows that it compares favorably with engineering curricula in the engineering schools of the country. It is well balanced in science and technology, and includes liberalizing subjects in English, economics, and social science. The coöperative character of the course with four or eight weeks at the institute, alternating with corresponding periods of work in the plant, permits a close coördination between theory and practice. The effectiveness of this

coördination is brought about by well organized work schedules, well planned schedules of coördination reports, full reports of progress of the students in the plant and in the institute, and a coördinated follow-up and guidance of the student.

This opportunity for development is not offered gratis to the students. They are required to pay a moderate tuition fee, which makes the institute partially self-supporting and increases the value of the courses in the estimation of the students.

4. *Other educational courses under the training plan.*—In addition to this higher engineering course, the automotive service division of the institute conducts training programs dealing with the service work of the sales departments, especially those phases that have direct application to the problems of the dealer-service organizations. The "spare time" division offers a program of short, intensive courses, organized on the basis of twelve weeks each, covering many phases of the automotive industry. The technical trades division gives courses in all the basic crafts of the automotive industry. Courses are offered for machinists, toolmakers, patternmakers and draftsmen; and, in simpler fields, instruction is given in the operation of the lathe, milling machine, grinding machine, and other machine tools. Excellent courses are given also to members of the accounting department in the fundamentals of accounting and related courses. Courses for girls cover general clerical work, shorthand, and typewriting.

The foremanship program offers a sequence of three courses, the first being a fundamental course in the principles underlying modern foremanship, conducted on a conference basis. Following this, two courses are given—one in the elements of management and one on industrial economics. Intensive courses are also provided in an executive training program for those who wish to prepare for future increased responsibility. There are both junior and senior executive programs.

5. *Method of administering the educational program.*—The manner in which this comprehensive educational undertaking fits into this great corporation is interesting. The controlling body is a board of regents, the president of which is the director of industrial relations of the corporation. The representatives on the board are from general headquarters and from a number of the manufacturing divisions of the organization. The head of the administrative staff is the director of education, with a staff reporting to him, similar to that provided in an educational institution. Finally, a faculty is provided of excellent educational and industrial background and in sufficient number to give adequate instruction to the student body.

The institute, therefore, offers a self-contained, all-inclusive program of education provided by the industry for the industry, with every opportunity furnished by which each employee may upgrade himself in his specific field of endeavor. Obviously, such

an extensive plan can be undertaken only by an organization engaged in large operations and of great financial strength.

6. *Educational plan of a public utility company.* —Let us now turn to the more modest, but nevertheless effective, educational program of a well-managed public utility company of moderate size. This plan typifies an educational development that could well be within the means of any business or industry in a community providing outside educational opportunities. The company has a well-organized educational division in charge of an educational director who has general supervision over all classes of training.

Development of skill is secured entirely through the method of training on the job. Each central station, or equivalent organization, has a training representative reporting to the superintendent, but coöperating closely with the educational director. A field representative is a member of the staff of the educational director. This representative makes personal contact with the training representatives, giving helpful counsel and advice, and contributing to uniformity of method and practice. The training consists of definite work assignments based on job specifications and arranged in sequence from the elementary to the more difficult unit operations.

Each day the training representative gives the new employee a written work assignment on a prepared form which requires a report from the worker de-

scribing the work accomplished. Weekly reports of progress are transmitted by the training representative to the educational director. At the conclusion of the training period the worker is given a comprehensive examination and, when he has passed this test satisfactorily, he is assigned to full productive work. Such a scheme of training can be carried on at very low cost.

7. *Group educational meetings.*—Additional educational opportunity within the company is available through the organization of group educational meetings. These meetings are based upon a carefully prepared program of lectures delivered periodically throughout each year. The lectures are arranged in their subject matter to appeal to different groups of employees, in accordance with their occupational interests. While most of the subjects are of a job improvement character, presented by supervisors and executives, these programs are interspersed with lectures of broadening influence given by outside speakers. Altogether, these lecture courses are comprehensive in character and should contribute much to the development and upgrading of the individual on his job.

8. *Coöperation with outside educational agencies.*—Illustrating the high degree of coöperation possible between the company and outside educational agencies, the public utility company carries on its foremanship training under the auspices of the State Board of Vocational Education, whose experts not

only contribute by conducting certain of the foremen's conferences, but definitely assist in training the members of the foremen's groups in the fundamentals of conference leadership. Opportunities for coöperation between industry and education are available throughout the country from vocational boards and university extension departments. The company taking advantage of these opportunities may secure expert teaching at low cost to the organization, or to the employees subscribing to the courses.

To encourage employees to take advantage of outside educational opportunities, the particular organization under discussion has prepared a booklet giving complete information on all schools in the community offering evening instruction. The survey includes public elementary schools, high schools, vocational schools, technical institutions, colleges, and universities, together with a complete index showing all courses that are available. Interest in these educational opportunities is stimulated through sympathetic and encouraging guidance by superintendents, advance of certain tuition fees, refunds and cash prizes at completion, and continuous counsel, advice, and supervision by the educational department. Refund of tuition by the company is made in whole, or in part, depending upon the amount of tuition charged by the institution. The refund is made only upon satisfactory completion of the course and compliance with the rules and regulations of the institution.

This example of educational organization is illustrative of the manner in which many moderate- and small-size organizations are carrying on such work. A plan of this kind gives maximum benefit to the employees at a minimum cost to the organization. A number of industries are giving some measure of financial assistance to their employees as a reward for outside educational effort similar to that described above. Educational surveys by industries made with the object of service to employees are increasing in number. The personnel departments of companies comprising one nation-wide industry have prepared bulletins of educational opportunities in a score of large population centers. That for New York City is a volume of considerable size.

9. *A community technical night school for industrial training.*—A unique development in the education of industrial employees has been organized by a large electrical manufacturing industry, with the coöperation of other industries in the community. The company has established a technical night school, which, because it serves the whole community, receives encouragement and support from the local public school system. Most of the classes are held in the public schools of the district. Except for a few items of overhead, this school is entirely self-supporting. A regular tuition fee is charged for each course. Each firm coöperating assists its employee-students by paying a portion of their tuition. In like manner, if the student has no industrial connection,

the district school board contributes a fixed sum for each student thus matriculated. The educational director of the industry, reporting to the director of personnel, is president of the technical night school. The faculty is recruited mainly from the supervisory and executive force of the sponsoring company, with a number of the members coming from the several coöperating industries.

10. *Courses offered by the technical night school.* —The general engineering course offered by the technical night school is designed to give the student a clear understanding of the scientific principles upon which all practical work depends. Mathematics, drawing, physics, and a knowledge of materials form the basis of the course. Shopwork is provided in patternmaking, foundry, and machine-shop processes to give practical application of the scientific principles involved and to give a general familiarity with standard shop tools. The course covers four years.

The commercial engineering department teaches the prospective commercial engineer or salesman to know the goods he is selling and gives him a thorough understanding of how the product is made. The training embodies fundamental engineering, business, and general instruction, which equips the student for the broad commercial phases of his work. This is also a four year course.

The junior engineering course prepares the student for entrance into the freshman class of the engineering department. There is also a four-year accounting

course that aims to give the student a clear conception of the fundamentals of accounting practice, corporation accounting, cost accounting, commercial law, fundamental economics, and the underlying principles of business administration.

In the women's department, the commercial division offers a thorough course in stenographic training. It covers the subjects of shorthand, dictation, English, current topics, self expression, typewriting, commercial mathematics, and secretarial studies. In addition to these more general courses, a large variety of special courses, requiring shorter periods of training, are available. The above illustration typifies the opportunities that an enlightened industry can provide in the way of educational advantages of direct benefit to the employees, giving them a chance to make a wise application of their leisure time.

11. *Types of courses offered by other industries.*— Many industries carry on out-of-hour courses on a basis less formal than that described above. In this informal manner, one large public utility company offers to its employees, free of all expense, twelve full courses on highly technical subjects. The instructors are members of the organization and give their services without extra compensation. Applicants for the courses must give evidence of a sufficient educational background to profit by the courses selected. Attendance in these courses is large, most of them running to capacity. The courses vary in length from eight to thirty-two sessions, scheduled either one or

two evenings each week. In a report for 1929–1930 which the writer recently examined, the total enrollment in these courses was 1,677.

Another large industrial research organization makes available to its young engineers and scientists out-of-hour courses of the most advanced character in mathematics, physics, and engineering. These courses are fundamental and compare favorably with university post-graduate work. Instructors come from the staff of the organization and they conduct the evening classes without extra compensation.

12. *Post-graduate study by employees.*—Not many industrial organizations have members who are competent to instruct in such advanced subjects. To meet this difficulty, a number of industries requiring men developed to the highest point of technical efficiency, particularly in design and research, arrange for selected young men of ability and appropriate educational background to do this advanced work through matriculation in a university or institute of technology. In this case, the student-employee must meet the requirements of the educational institution for becoming a candidate for the master's degree. A number of institutions willingly coöperate in making adjustments that will enable an employed person to take advantage of this opportunity. The student must cover all the subjects required, including research and the preparation of a thesis, but he is permitted to do the major portion of his work at his place of employment, under the supervision of the

educational director of the industry. Classes for this purpose are organized within the industry and members of the faculty come to the plant to give the necessary instruction. Sometimes, where there are competent men within the industry to cover some of the requirements of the course, they are authorized by the institution to conduct the classes and, by so doing, become, for this purpose, members of the faculty. In some instances, the industries generously allow their student-employees to carry on their educational work on company time. The educational institution usually requires the student to be in residence during the final semester, and this requirement is met by the industry, usually through granting leave of absence to the student, without pay. The student, of course, must meet the tuition requirements of the institution.

13. *Coöperative education.*—A discussion of illustrations of types of training and intellectual development of workers in industry would not be complete without making reference to the educational system known as coöperative education. Mention was made of it in outlining the educational plan of one industry, but in the present instance reference is made to coöperation between the industry and the school. This plan is of comparatively recent development, although pioneering work was done in this field more than twenty years ago. The responsibility for the evolution of the coöperative education plan lies with a group of educators who conceived

that a superior type of education could be secured for the student if he combined theoretical instruction with practice by working on the job. So the student begins with a period at the institution, followed by a period of work in an industry, and carries on in this manner until the full prescribed course is completed. The terms at school and in industry vary in length from four weeks to a semester, or a half school year. The students usually are assigned to a given industry in pairs, so that the industry will have one man continuously on the job. In other words, two students substitute for one man continuously employed. The great advantage to the student in this plan is that, when he finishes his formal education, he has also built up a substantial background of industrial experience. The advantage to industry is that, when organizations employ permanently graduates of schools and colleges of this character, they are securing men already trained for productive work, and of known ability and capacity.

The administration of this educational method seems difficult at first, but when well organized, with responsibility properly fixed, the operation of the plan runs smoothly and calls for no great administrative effort. Because of the undoubted values to business and industry in this type of education, it would seem that it should command a high degree of coöperation on the part of industry in the acceptance of students for their work periods. The responsibility for the successful functioning of this coöperative plan

logically would be with the educational director of the personnel department.

14. *Measuring results against expense.*—The illustrations given above cover very briefly the excellent work that is being done by business and industry in the training and development of employees. It is hoped, however, that the brief résumé given will be helpful to personnel managers, educational directors, and management in general, in measuring their efforts against the accomplishments of others. There will always be the pressing question of the amount of effort and expense involved, which must be answered for management in the results achieved. Positive results should be demonstrated in increased efficiency and in increased satisfaction to the workers. In this day and age, the values of training and education in industry have been accepted as proved. The serious problem confronting any personnel department is the extent to which this work can be carried on, in view of all the conditions surrounding the company. All that can be said is that the maximum should be accomplished with the resources available.

## REVIEW

Outline the four divisions of the training program offered by the automobile company mentioned in the Text.

Describe the group educational meetings of the public utility company as outlined in the present chapter.

Explain the arrangements that companies may make for the training of their workers in outside educational institutions.

What opportunities can an industry offer to selected employees for post-graduate study?

Explain the plan of "coöperative education."

Outline briefly the educational plan and program of your own or some other company, explaining: (a) the organization of the training department, (b) the groups of courses offered, (c) methods of instruction, (d) costs to employees, (e) plan of checking up on the progress of students, and (f) the benefits secured by the individual and the company.

# CHAPTER XXII

## DUTIES OF THE PERSONNEL DEPARTMENT—SERVICE, PERSONAL RELATIONS, RESEARCH

1. *Nature of duties.*—The duties of the service, personal relations, and research divisions, as in the other divisions, are both functional and administrative in character, with the functional responsibility a high factor in the two latter divisions. In fulfilling its administrative responsibilities, each division carries on through the application of the fundamental principles of administrative procedure. In this chapter, therefore, it will be necessary to refer only to certain administrative features that might be considered unique in their application to the activities of the personnel department.

2. *Health and medical service.*—In the service division, the health and medical service, because of its peculiar administrative and professional aspects, deserves some comment. The medical service should be provided with good physical organization and equipment. A comfortable waiting room should be available for employees requiring medical treatment or examination. Two or three small rooms should be furnished for physical examinations of applicants and for periodical health examinations of employees.

Rooms for medical treatment of the sick should be available and space for the several clinics provided. In addition to the regular medical service, eye, ear, and dental clinics might be included. An X-ray room, with full equipment, is desirable for diagnostic purposes. One or two small rest rooms for patients to occupy after examination or treatment would be helpful. These facilities, with offices furnished for the doctors, would complete the physical layout.

The physical examination of each applicant is important not only as a factor in the employment procedure, but also because it lays the foundation for the health history of the accepted employee, insures his proper placement in accordance with his physical condition, and, by giving him knowledge of such physical condition, starts him well on the road toward the future maintenance of his health.

In large industrial organizations drawing employees from distant points where the company may have no offices or plants, it is sometimes necessary to have the physical examination of applicants made by physicians other than those employed in the regular medical service of the company. It is the reponsibility of the medical director to prepare forms and instructions that will insure uniformity in physical examinations, wherever, whenever, and no matter by whom they are made The form shown in Figure 17 is an illustration of such an attempt. The body of the form calls for information and items of examination identical with those recorded when company physicians

DATE_____

NAME OF COMPANY_____ DEPARTMENT_____

ADDRESS_____

DOCTOR_____

ADDRESS_____

MR._____ OF_____
(NAME OF APPLICANT) (COLLEGE OR UNIVERSITY)

AN APPLICANT FOR A POSITION WITH THIS COMPANY HAS BEEN REQUESTED TO REPORT TO YOU FOR EXAMINATION. KINDLY MAKE THIS EXAMINATION AS OUTLINED IN THE ACCOMPANYING MEMORANDUM AS INDICATED BELOW AND RETURN THE COMPLETED FORM, WITH YOUR FEE INDICATED ON THE ATTACHED BILL TO THE SIGNER OF THIS REQUEST.

_____
(SIGNATURE)

## CONFIDENTIAL
## MEDICAL RECORD

DATE_____

FAMILY HISTORY

PREVIOUS PERSONAL HISTORY

PRESENT PERSONAL HISTORY

ROUTINE DATA:

AGE
WEIGHT
HEIGHT, .....FT. .....IN.

SINGLE
MARRIED
WIDOWER
CHILDREN

T.
P.
R.

BLOOD PRESSURE { SYST. / DIAST.

DATE OF LAST SUCCESSFUL VACCINATION { SMALLPOX / TYPHOID

URINALYSIS { ALBUMIN / SUGAR

EXAMINATION SEQUENCE (NOTE ABNORMAL CONDITIONS ONLY):

1. GENERAL APPEARANCE
2. SKIN, SCALP
3. MUCOUS MEMBRANE
4. EYES, VISION
5. EARS
6. NOSE
7. THROAT, MOUTH
8. NECK
9. CHEST, LUNGS
10. HEART
11. ABDOMEN, HERNIA
12. GLANDS
13. GENITALIA
14. RECTUM
15. REFLEXES
16. EXTREMITIES
17. JOINTS

CLASSIFICATION_____

REMARKS_____

NOTE: FOR ANY CLASSIFICATION INDICATE IMPAIRMENTS WHICH SHOULD BE FOLLOWED UP. IF CLASS B, C OR D, DESIGNATE THE IMPAIRMENT OR DEFECT CAUSING SUCH CLASSIFICATION.

APPLICANT EMPLOYED (NOT EMPLOYED)_____ 19____

_____ M. D.
EXAMINING PHYSICIAN

_____
(SIGNATURE OF EMPLOYING OFFICIAL)

DATE_____

NO._____

NAME OF COMPANY_____

DEPARTMENT_____ CORRECT

ADDRESS_____

TO DR._____ *Dr.* APPROVED

MAIL ADDRESS_____

| DATE OF EXAMINATION | FOR PROFESSIONAL SERVICES RENDERED IN THE CASE OF | CLASSIFICATION AND AMOUNTS |
|---|---|---|
| | | |

RECEIVED OF_____
(NAME OF COMPANY)

_____ DOLLARS, IN FULL PAYMENT OF ABOVE ACCOUNT

DATE_____ _____
(SIGNATURE)

FIGURE 17—FORM FOR MEDICAL EXAMINATION

make the examination. The enumeration of the examination sequence permits the doctor merely to make a check of the items when the applicant's condition is normal, and space is provided for comments on abnormal conditions. Some organizations require a classification of physical condition by the medical examiner, following that indicated in Chapter IX, on page 92. Other organizations feel that clear indications, by the doctors, of physical defects will be sufficient to guard the employing agents against wrong placement of applicants because of physical conditions. Appended to this examination form, below the perforated line, there is provided a voucher to be submitted by the outside physician for services rendered in making the physical examination.

3. *Physical examinations and health maintenance.* —Comment already has been made on the advisability of providing that periodical physical examinations of employees should be entirely voluntary on the part of each individual. When such examinations are made, they should be thorough, and the result made known to the employee, with advice and prescription, when required, from the medical officer, to improve the physical condition of the employee.

Health maintenance is an important function of the medical service which can be secured best through educational processes. This undertaking would involve the training of instructors, conducting of classes, and the preparing of educational material for the employee. Illustrations of the good work that is

being done in this field are to be found in a number of industries that are carrying on instruction in first aid, accident prevention, general health maintenance, and nutrition. We find indicated here an important staff function of the medical service.

4. *Benefit plans and pensions.*—Because of the close interrelationship between the administration of benefit plans and pensions, this responsibility should be assigned to a section of the service division specializing in such work. The awarding of accident, sickness, and death benefits, and disability retirement on pension, requires decisions of a highly judicial character. Hence, the responsibility for making these awards usually devolves upon a benefit committee. Fair dealing is the essence of the successful administration of a benefit plan to secure uniform treatment to all employees, although a large element of discretion must enter into many cases. For this reason, the members of the benefit committee usually are officials high in the organization. In most cases, the personnel manager is made chairman of the committee. The other members of the committee usually are department heads. Each case is investigated and reported on by the secretary of the benefit committee, who is a full-time working member, and head of the benefit and pension section of the service division. He makes available to the committee full and complete evidence, in each instance, upon which the committee bases its decision. The administration of thrift plans would pertain normally to this section.

Lunchroom service, rest rooms, recreational facilities, and other miscellaneous personnel activities might well be grouped together and responsibility for their administration vested in a third section of the service division. The section head would have on his staff an efficient restaurant manager, an expert dietician, an athletic director, and a woman in charge of those activities that concern women employees. It might be appropriate to assign the responsibility for the publication of the house organ to this section, but probably it would be better for the editor of the company magazine to report directly either to the service director or to the personnel manager.

5. *The personal relations division.*—The duties and responsibilities of the director of the personal relations division bring him into more direct contact with the members of the organization as individuals than is the case with the directors of the other divisions. Through his activities he should be able to reflect to the personnel manager a true picture of the morale of the organization, and the feelings and attitudes of the employees. He and members of his staff should always be accessible to employees who may wish to lay their personal troubles before some responsible official, when they feel that their immediate supervisor cannot serve them.

6. *Employee representation.*—The chief instrument for discharging these responsibilities comes from the plan of employee representation. The major function of this division is to insure the efficient opera-

tion of this personal relations plan. As before stated, the actual operation of the plan lies with the operating officials of the company, and success in its operation can be promoted best by the personal relations division through helpful counsel and advice to, and whole-hearted coöperation with, the operating officials. On the other hand, thoroughly good staff work will tend continually to strengthen the plan. The best means of checking on the detailed working of the plan is through critical review and analysis of the minutes furnished to the director by the chairmen of the joint conference committees. Through this information, the division can determine whether or not the committees are holding the number of meetings desired and on the proper time schedule.

The subjects that have been under discussion within the committee, and the source of initiation of the subjects, whether by management or men, will be made clear through the reading of the minutes. A rough measure of the morale of the personnel will be indicated by the number of serious complaints brought forward pointing to dissatisfaction among the employees. An examination of the results of the work of joint conference committees in action will reveal probably that the most important subjects discussed are: wages; working conditions; methods; objectives and results; equipment and tools; thrift; health and safety; the plan of employee representation, itself; public relations; and general information on problems of management and operation.

As indicated previously, great care should be exercised in the preparation of the minutes of the meetings. One of the important reasons for this care is that the records of the proceedings of the committee form the basic information for future improvement in the effective operation of the plan. No better manner of showing the inner workings of joint conference committee meetings can be given than to quote briefly from the minutes of a local committee on a subject of general interest having to do with a certain phase of working conditions. It is as follows:

"An employee representative stated that, in the past, much dissatisfaction has been expressed with the method of assigning vacations. He said many of the employees are assigned periods during the early spring or in the late fall months. In the case of an employee with children in school, such an assignment amounts merely to time off, as he cannot take his children from school to visit other localities for pleasure and recreation. Also, many employees must take their vacations in a period in which legal holidays occur, and in this case the holiday is considered as part of the vacation. In the past this has been freely commented on, as employees believe the privileges extended to one employee should be enjoyed by all.

"It was his opinion also that the company and the service both suffer, due to the force being partially disrupted over a period of approximately six months. Routine inspections are delayed, resulting in increased

complaints and dissatisfied customers. As a remedy, he suggested that all vacations be assigned during July and August on a three-period basis, as follows:

| *One-third Force Off* | *Full Force Working* | *One-third Force Off* | *Full Force Working* | *One-third Force Off* |
|---|---|---|---|---|
| July 6–19 | July 20–26 | July 27–Aug. 10 | Aug. 11–16 | Aug. 17–30 |

Although some routine matters would be deferred during the period in which the employees are away, the return to work of the entire force for a week between each period would allow sufficient time in which to bring this work up to date.

"The management chairman asked if the employees believed it possible to grant vacations to this number of employees at one time without seriously handicapping the service. It was stated that under the old method part of the force is absent over a much longer period of time, and that during this period other employees must handle the work of the absent ones. While similar action would be necessary under the proposed plan, in view of the fact that the entire force would be at work between each period no difficulty in maintaining plants should be experienced.

"The management chairman then said that, in view of the construction departments receiving vacations this year, some thought has been given to a similar plan, which is as follows:

| *One-half Force Off* | *Full Force Working* | *One-half Force Off* |
|---|---|---|
| July 6–19 | July 20–Aug. 2 | Aug. 3–16 |

As the activities of the construction and maintenance departments materially affect the work of each department, it would be best to schedule their vacations during the same periods, and no particular difficulty should then be encountered in administering either plan.

"An employee representative then asked, in the event either of the proposed plans were adopted, if it would be compulsory for employees to accept their vacations during one of the periods. If such were the case, it was his opinion that certain hardships would fall upon the employees who desired making special trips which could not be conveniently made on the prearranged dates.

"It was decided that special treatment could probably be given to cases of merit, and unless the privileges were abused, a few instances of this would really be desirable, as those employees would be at work helping to maintain normal service during the proposed vacation period. It was suggested that, if it is decided to adopt the plan proposed, it should be understood that the first year was for trial purposes only. Future plans would be based on the experience gained.

"It was developed that another benefit the employees would derive from this plan would be that

families or groups within the organization desiring to spend vacations together might do so; this is seldom possible under the present plan unless employees trade periods with co-workers.

"Recommendations were made for executive approval and the second plan was adopted for trial."

These minutes are interesting as showing the manner in which discussions are carried on within joint conference committees, and the interplay of opinions between employee and management representatives. There is shown an earnest desire on the part of all to arrive at a constructive solution of a problem presented by an employee representative which was causing dissatisfaction among the members of the force. It can be realized that much of interest and value can come out of the compilation of excerpts from the minutes of joint conference committees and their distribution to officials responsible for the operation of the plan, particularly the management representatives on the joint conference committee. This is a real service that the personal relations division can render.

7. *Other effective coöperative methods.*—Knowledge of what is on the worker's mind can be obtained effectively through a plan of employee representation, but where this means does not exist other measures are sometimes very effective. Two illustrations will be cited for accomplishing the same objective. The first one came about in a large manufacturing organi-

zation through experimental work on a very minor objective, which was to ascertain the effect of illumination on working efficiency, in other words, the relationship between the light intensity and the volume of production. This investigation early developed the need for a study of other factors in employee effectiveness, which brought about the decision to carry on a full laboratory research investigation on a small group of workers. The original objective of this experiment was to find the answers to six questions, namely:

(a) Do employees actually get tired out?
(b) Are rest pauses desirable?
(c) Is a shorter working day desirable?
(d) What is the attitude of employees toward their work and toward the company?
(e) What is the effect of changing the type of working equipment?
(f) Why does production fall off in the afternoon?

Space does not permit giving details of the full operation of this experiment. Suffice it to say that the six original questions developed a number of others and involved a sympathetic interviewing of each employee under consideration. The greatest factor in the results was in the improved mental attitude of the employees, brought about by better and more personal consideration in supervision, and by freer and more pleasant working conditions. It was found also that the social, home, and outside life of members of the working force are definitely related to their success or failure in their daily occupations.

On the basis of the experimental work done, a general interviewing program was established for the purpose of learning the employees' likes and dislikes toward the various elements in their working environment. Interviewers were selected on the basis of good personal characteristics and were thoroughly trained for their work. Each employee now is invited to contribute his comments and all that he says is held strictly confidential. No identifying information is included in the written report of the interviews.

8. *Benefits of interviews with workers.*—A study of the interviews has furnished data of direct utility. Comments on working conditions supplied valuable ideas as to possible improvement in the physical environment, and has made desirable the improvement of many items previously considered satisfactory. Non-identifying comments of employees are discussed by supervisors in conference groups. Experience with this plan of training indicates that it has advantages not previously obtained by other training methods. It gives the supervisor a mirror in which he may see himself as he is seen by employees, and yields the values obtained by understanding the employees' point of view, without the fruitless hard feelings that result from the method of direct accusation and argument. A combination of the comments of employees and the resultant supervisory discussions is furnishing a new and valuable check upon the manner in which company policy is affecting employee re-

lations. Articles by G. A. Pennock and M. L. Putnam, in *The Personnel Journal* describe such developments most interestingly and in more detail.

9. *The labor audit.*—Lack of space forbids anything but a brief mention of the labor audit that is advocated strongly by Tead and Metcalf in their work on "Personnel Administration." Their definition of the labor audit is as follows:

> The labor audit is a systematic and reasonably exhaustive analysis and statement of the facts and forces in an organization which affect the relations between employees and managers, and between employees and their work; followed by recommendations as to the ways of making the organization more socially and humanly productive and solvent.

This definition indicates clearly that if such an audit is undertaken it would come within the purview of the responsibilities assigned to the director of personal relations.

There are two ways in which a labor audit might be made. One is by representatives of the personnel department within the organization; the other involves calling in an expert from the outside to perform this work and give the company the benefit of an independent viewpoint. There are distinct advantages in this latter method if it is desired to make the examination only once, due to an unsatisfactory situation in personal relationships. It might even be well to have an audit made by an outside agency, at wide intervals of time, for checking up on a seemingly good

personnel situation to determine the progress that has been made and the efficiency with which personnel activities are carried on. Fundamentally, however, it would seem that this review, survey, and analysis of conditions should be a continuing process, and that it could be done with more sympathy and understanding by the personnel department in close coöperation with all of the operating departments.

Enough has been said, it is believed, to indicate the wide scope in the responsibilities of the personal relations division and the many opportunities that it has of developing straightforward understanding of the problems in human relationships.

10. *Work of the research division.*—The director of research, within the limitations of his responsibility, should be the chief aid to the personnel manager in orienting him on the general aspects of the whole personnel situation within the organization. He will coördinate all the investigations and researches carried on by the other divisions of the department. He will initiate research problems that do not pertain directly to the activities of the other divisions, or he will make thorough investigations of new projects that might be developed and later assigned for administration to one of the other divisions. His function here might be analogous to the engineering development department of a manufacturing establishment, where new processes are conceived and developed, and, after thorough test, included in the general production program. One of his important functions should be

to carry on investigations of personnel projects in outside business and industrial concerns, and make comparative studies that will show the best manner of accomplishing any given personnel undertaking. He can be helpful in many ways by using and counseling the use of the scientific attitude in the attack on all personnel problems.

## REVIEW

Explain why the medical examination of applicants is important.

Outline the organization of a pension and benefit committee and describe its usual method of functioning.

Show how an employee representation plan is administered and list the topics that the committee may take up for discussion.

What benefits may result from the meetings of the employee representation, or joint conference, committee?

What other coöperative personnel methods can be made effective in building up morale and improving working conditions?

Explain what is meant by the "labor audit."

Outline the work of the personnel research division.

# CHAPTER XXIII

## THE PERSONNEL BUDGET

1. *Necessity for a budget.*—No personnel department can function efficiently or economically without a carefully prepared annual budget of expenditures. Budgetary control is indispensable to scientific management, and is as important to the personnel manager as it is to other major executives. Where the business or industry as a whole is already running on an annual budget, of course, the preparation of a budget for personnel activities will have become a matter of annual routine. The personnel manager's attention, in this case, will be given to more refinement and greater accuracy in predicting the needs of his department, and to the making of careful adjustments to conform to probable expansion or retraction of the business.

Each year he will give consideration to new projects. If his own judgment commends them, he will prepare a careful analysis of cost and submit it to the budget committee and the chief executive, with recommendations for adoption. If the new undertakings are approved, the cost of the work will be included in ·s budget. The basis of preparation of the budget for any given year, naturally, will be the actual ex-

penditures of the department for the year preceding, with such adjustments in the several items as changing conditions seem to warrant.

2. *Building up the budget.*—For purposes of study, however, let us consider the preparation of a personnel budget as an initial undertaking. The items that appear on the personnel manager's budget will depend on the specific duties and responsibilities assigned to him. Expenditures will be influenced chiefly by the size of the organization and the number of personnel activities undertaken. Surveying the whole field of industrial relations activities that contribute to the well-being, contentment, and high morale of the working force, it will be possible to determine those elements that appropriately pertain to the responsibilities of the personnel department, and those that do not.

Wages and financial incentives, on first consideration, would not seem to concern the personnel department, except in so far as they affect the members of the department, and require the time of the personnel manager and his staff in connection with general policy considerations. But care must be taken in the definition of terms. If the subject of wages and financial incentives covers all of those industrial relations activities that have a definite and measurable financial value to the worker, then differentiation must be made. Clearly, the questions of fixed wage rates; piece rates; production bonuses; supplementary bonuses for length of service, for at-

tendance or punctuality, and for quality of product; profit sharing; and vacations with pay can all be considered remuneration to the worker and chargeable to the particular department in which he is employed. The determination here might well be that items such as these, or whatever goes into the pay envelope of the employee, are no concern of the personnel manager, as far as pertaining to his budget.

There is, however, another group of financial incentives of measurable monetary value to the employee, which may be called indirect, and which appropriately come within the purview of the responsibilities of the personnel department. This group comprises stock purchase plans; accident, sickness and death benefits; pensions; insurance; savings plans; lunchroom service; and other minor items. Provision for expenditures in the operation and administration of these activities should be made in the personnel budget. The amount needed for them will depend upon the liberality with which they are administrated.

In the consideration of benefit plans, for example, if the plan is contributory, supported fully by employee subscriptions, the cost to the company will be confined to a small administrative expense. If the plan is composite, expenditures will be moderate, but if non-contributory, the budget item will be substantial. With reference to insurance plans, the company may merely make payroll deductions for the payment of premiums by the employees, and in other

ways make it easy for them to secure insurance, it may participate with the employee in the payment of premiums, or it may take out a group insurance policy, paying the whole cost. These items of the personnel budget, then, are fully controlled by company policy.

3. *Place of various service and benefit plans in the program.*—If a pension plan is inaugurated, it becomes a major financial obligation. As has been pointed out in a previous chapter, no pension plan can have the stability that will insure keeping faith with the employees, unless it includes the building up of a trust fund. It was shown that a conservative estimate of the annual cost devoted to this purpose is two per cent of the payroll. If the company has a policy of centralized employment, provision must be made in the budget for the adequate administration of that activity. Training and development, as a centralized function of the personnel department, require most careful consideration from the standpoint of scope. As previously shown, the extent to which such activities are introduced depends upon the nature and policy of the individual company. It is the responsibility of the personnel manager and the educational director to develop this function in such a manner that it will be well within the resources of the organization.

The service division, which includes the administration of activities that have been referred to as indirect financial incentives, carries by far the largest portion

of the financial burden of the personnel department. In addition to the departments listed, there are health and medical service; thrift plans; rest and recreational facilities; lunchrooms; company periodicals; and other minor services to be covered in the budget. These divisions have important administrative duties to perform, as well as important staff functions to exercise. Their administrative expense will be higher than those of the employee relations division and the research division, both of which are more specifically functional in character, with the predominant expense in the salaries of the staff. It will be noted in this discussion that budget consideration follows definitely the organization set-up of the personnel department, as previously developed. No brief is held for this particular form of organization, except that it seems a logical one, but budget development undoubtedly should follow the form of organization of the personnel department.

4. *Amount of the budget.*—The amount of the budget depends definitely on the number of personnel activities authorized under company policy and their direct assignment as responsibilities of the personnel department. To give concrete consideration to the budget, let us develop a hypothetical case, making certain fair assumptions. Concerning personnel activities, the assumption will be that the company carries on within the personnel department centralized employment; a moderate development of training and educational undertakings; pensions on the basis of the

upbuilding of a trust fund, and granting to each employee a pension of one per cent of his average salary for his last ten years of service, multiplied by the number of years in his term of employment; a benefit plan on the non-contributory basis; and an insurance plan with payroll deduction administration, but without participation by the company in premium payment; the administration of other thrift plans, such as stock purchase and savings; lunchroom service; limited provision for rest and recreational facilities; and the publication of a house organ. It will also include the administration of an employee representation plan, a study of general employee morale problems, and a modest amount of personnel research.

5. *Apportionments under a typical plan.*—Without describing the company in detail, as to its financial structure, and its receipts, expenditures, and net income, let us make an assumption only on those factors that relate most closely to the personnel of the organization, namely, the amount of the payroll and the number of employees. Suppose that the company has ten thousand employees with an annual payroll of fifteen million dollars. The personnel manager submits his budget to the budget committee and the president, in summary form, grouping therein items of major expenditures, and appending detailed supporting evidence explaining these expenditures. Such a summary budget is shown in Figure 18 on page 327.

PERSONNEL DEPARTMENT EXPENSE BUDGET

Annual payroll.....$15,000,000
Total number of employees..... 10,000

| Item | Per cent of Payroll | Amount |
|---|---|---|
| Salaries | 1.0 | $150,000 |
| Supplies | 0.1 | 15,000 |
| Company service (Rent, service, light, heat, water, telephone, etc.) | 0.2 | 30,000 |
| Miscellaneous (Travel, repairs, depreciation, etc.) | 0.1 | 15,000 |
| Pensions | 2.0 | 300,000 |
| Benefit payments (Accident, sickness, death) | 0.8 | 120,000 |
| Total | 4.2 | $630,000 |

Annual cost per employee.....$63
Annual cost per employee, less pension cost.....$33

FIGURE 18—SUMMARY OF BUDGET APPORTIONMENTS FOR PERSONNEL ACTIVITIES, UNDER A TYPICAL ASSUMED PLAN

Salaries form by far the largest portion of the administrative expense. It might be stated here that the personnel department has no place for cheap men. The members of the staff have important administrative and staff functions to perform and the creative work which they are called upon to do demands men of a caliber comparable in every way to staff and line executives and employees in the same levels of other departments of the organization. It seems not unwarranted, then, that the total personnel of this department should receive in remuneration a total

amount equal to one per cent of the total plant payroll.

It will be found, in well-organized personnel departments, that the number of employees runs somewhat less than one per cent of the total. A conservative amount is estimated for annual supplies and, of course, it is only just that the personnel department should carry its share of what might be termed the company overhead: rent, house service, light, heat, water, telephone, in fact, all those items that go into the furnishing of space for the personnel activities and the maintenance of the building in which this space is located. Miscellaneous is a much abused term and might indicate a looseness in the preparation of a budget, but the items included are so varied in nature, that in a summary its use is justified. Travel, repairs, and depreciation are mentioned as some of the items included under this heading.

Pensions are distinctly a major item in the budget and should be included in the summary. Two per cent of the plant payroll allotted for this purpose makes this item nearly one-half of the personnel manager's budget. Of course, if a company should adopt a weak pension policy, paying pensions out of annual gross income, for a number of years this item could be held to a much lower amount, say as low as five-tenths of one per cent of the payroll. Eventually, however, it might approach the two per cent involved in the upbuilding of a trust fund. On the

other hand, with a courageous attack on the pension problem, with the building up of a trust fund on the amortization basis suggested, a fund will eventually result, the income from which will cover all pension payments. In this case, the budget item eventually would be reduced to a small administrative expense.

The assumption of a non-contributory benefit plan makes this item one of high cost, eight-tenths of one per cent of the payroll. This amount could be cut in half on an employer-employee participation plan, or could be reduced to a small administrative expense under a plan of full contribution by the employees. The other personnel activities call primarily for staff work and administration, so that the cost of carrying them on is included in the first four items of the summary budget.

6. *Costs of personnel work.*—It will be seen from Figure 18 that the total budget of the personnel department is four and two-tenths per cent of the payroll, and, in amount, $630,000. This makes the annual cost for each employee $63, or, less the major item of expense—pensions—$33 per employee.

There is little evidence, in reports published thus far, tending to show that industry spends quite as much as indicated in the calculation in this summary. In one valuable report on "Cost Findings for Personnel Activities of the Industries of Massachusetts," published by the American Management Association, one group of industries, with over fifteen hundred employees, and engaging in seven or eight major per-

sonnel activities, lists budgets averaging one and eight-tenths per cent of the payroll. The National Industrial Conference Board, in an interesting study of industrial relations programs of small companies with two hundred and fifty, or less, wage earners found the average cost to be $26.65 per year for each employee who shared in one or more of the benefits, with a maximum average expense of $49.17. The calculation showed further that the cost of these activities was about two per cent of the annual factory payroll, with a maximum of three and nine-tenths per cent. As these small industries engaged in a much more limited number of activities than those shown in the summary budget, the expense does not seem excessive. However, as the method of preparing a budget is the object of this discussion, the amount of the expense items shown in its development is of minor importance.

7. *Detail items in the budget.*—The responsibility for the detailed preparation of a budget lies with the heads of the several divisions of the personnel department. Each division head prepares his own budget and submits it to the personnel manager for coördination, revision, and approval. The total budget includes the estimate made by the personnel manager of the expenditures of his own office. It would be impossible, within a limited space, to present the details of the budgets of the several divisions of the department. It might be of interest, however, to glance at a breakdown of the budget summary in-

PERSONNEL BUDGET BY DIVISIONS OF THE DEPARTMENT

| | | |
|---|---|---|
| Personnel manager | | |
| Salaries | $17,000 | |
| Supplies | 250 | |
| Company service | 1,000 | |
| Miscellaneous | 500 | |
| | | $18,750 |
| Employment division | | |
| Salaries | $25,000 | |
| Supplies | 2,250 | |
| Company service | 7,000 | |
| Miscellaneous | 4,000 | |
| | | 38,250 |
| Training division | | |
| Salaries | 25,000 | |
| Supplies | 4,000 | |
| Company service | 8,000 | |
| Miscellaneous | 4,000 | |
| | | 41,000 |
| Service division | | |
| Salaries | 55,000 | |
| Supplies | 7,000 | |
| Company service | 10,000 | |
| Miscellaneous | 5,000 | |
| Pensions | 300,000 | |
| Benefit plans | 120,000 | |
| | | 497,000 |
| Employee relations division | | |
| Salaries | 20,000 | |
| Supplies | 1,000 | |
| Company service | 3,000 | |
| Miscellaneous | 1,000 | |
| | | 25,000 |
| Research division | | |
| Salaries | 8,000 | |
| Supplies | 500 | |
| Company service | 1,000 | |
| Miscellaneous | 500 | |
| | | 10,000 |
| Total | | $630,000 |

FIGURE 19—DETAIL APPORTIONMENT OF THE PERSONNEL DEPARTMENT BUDGET SUMMARIZED IN FIGURE 18

dicating the respective obligations of the division heads in the expenditures of the department. The items follow that of the summary, and as will be seen in Figure 19, the responsibility for the expenditures of the major portion of the total budget rests with the service division, because of the large items of pensions and benefits. The repetition of the summary items indicates the administrative needs of each division.

In salaries, the employment division and training division are on an equal basis, which, on the assumption of a moderate training program, seems logical. If the training program undertaken were at all similar to that of the activities for the large corporation engaged in the manufacture of automobiles, as described in Chapter XXI, the expenses of the training division would be much higher than those of the employment division. The higher amount for salaries in the service division is easily accounted for through the cost of administration of the health and medical service. For the employee relations division and the research division, the demands are moderate and in just relation to the amount of administrative effort in the other divisions. In the items of supplies and company service, the maximum amounts also appear in the service division. More space is needed because of the number of activities administered by this division, particularly when consideration is given to the needs of the medical service. Space, also, is a large item in the overhead for lunchroom service and for rooms for rest and recreation.

The division budgets would not be submitted in the generalization indicated in the figure, but would be in all the detail necessary for the personnel manager to make a correct analysis of the needs of each. These division budgets would also be the supporting evidence to the summary budget submitted to higher authority. Names of employees, with their salaries and wages, would be shown, and also kinds and amounts of supplies needed, floor space—in fact, all the detailed items that are necessary in the make-up of the budget.

8. *Justifying the expenditures by results.*—The preparation of a budget is a difficult undertaking and in its overall consideration the personnel manager must familiarize himself with the general financial condition of the company and govern his estimates accordingly. He must be convinced, himself, and be able to convince those in higher authority, that the work of his department is contributing definitely to the efficient progress of the industry and is worth to the organization the amounts recommended for expenditure.

In the development of personnel activities, he must consider both organization and social responsibilities. The number of activities undertaken fundamentally controls the size of the budget. It is the duty of the personnel manager to be absolutely sure that his program, as it is expressed in the budget, bears a correct relationship to the financial strength of the organization.

## REVIEW

List the important items that should enter into the personnel department budget.

Indicate how company policy and the relative size of a concern affect the budget apportionment.

Tabulate the major items that appear in a typical summary budget of a personnel department, and indicate the factors of expense that they include.

In a well-organized personnel department, administering among its activities a sound pension plan, state what percentage ratios are considered normal for: (a) number of employees in the department, as compared with the total number on the company's payroll; (b) payroll of the personnel department as compared with total payroll; (c) pension costs on the basis of total payroll; (d) total budget of the personnel department as compared to the total payroll.

What is the approximate maximum and what the average normal expense of personal activities per employee at the present time in representative companies?

List the divisions of a representative personnel department, indicating under each the items that would make up the budget under normal conditions.

What justification can be made for the costs of personnel work in a company?

# CHAPTER XXIV

## PERSONNEL MANAGEMENT—THE BROAD OUTLOOK

1. *Place of personnel management in the organization.*—In the preceding chapters effort has been made clearly to define the objectives of a wise personnel policy. The functions involved in the operation of personnel activities were developed and the varying methods of administration of the personnel problems discussed. In covering the broad subject of personnel administration, an attempt was made to fix responsibility and place the operation of the several activities where they belonged in a logical scheme of organization. Yet, it must be realized that, while the personnel department exercises a major function in the discharge of its staff and administrative responsibility, it cannot do more than make a large contribution to the solution of the serious problems of human relationships.

Personnel management, in the larger sense, becomes a distinct responsibility of every member of the management group, from the president down through the levels to the newly appointed first-line foreman. Let us challenge this statement for a moment by analyzing the responsibility and the attitude

of the foreman toward the personnel policy of the company. He is definitely interested in the selection process and must add his judgment to that of the employing agent to insure that the right man is selected for assignment to his group. When he has selected workers, he is distinctly responsible for their training and development. All outside training activities are only aids to him in meeting his responsibility. He is the most important agent in the organization through whom to transmit information to the workers of all the other personnel activities about which it is to their advantage to know. It is necessary for him to be thoroughly conversant with the details of medical service, benefit and pension plans, stock purchase, insurance, savings plans, employee representation and other plans, so that he may explain them fully to the worker and make clear to him how he can avail himself of the privileges offered. He represents the company to the worker and, in a sense, as far as the worker is concerned, he is the company. It is clear, is it not, that he is the "personnel man" for his small group?

2. *Responsibility of operating supervisors for the program.*—On up through the levels, while the intimate responsibility, except for immediate subordinates, is not so great, general responsibility for the successful functioning of all personnel activities is greater. Every member of the supervisory and executive organization should be conversant with all phases of the general personnel policy and its expres-

sion in the various personnel activities undertaken; not only should he know of them, but he should know the reasons for their adoption and be able to interpret them clearly to his subordinates on down the line. Through this complete understanding he will become an enthusiastic supporter of every personnel measure and will give full coöperation to insure its success.

Moreover, in all those complexities of human nature that enter into the relationships of man to man, it is only the executive, the supervisor, and the foreman who can solve the problems because they are meeting their subordinates in day-by-day contact. Loyalty and high morale can be secured only through encouragement, right discipline, and human understanding from the man to whom the employee looks for leadership. Loyalty cannot be commanded, but can only be developed through fair dealings and right objectives. In this sense again, every executive is a personnel man.

3. *Importance of the personnel manager.*—This conception of personnel management detracts in no way from the importance of the work of the personnel manager. In fact, it increases his responsibilities manifold, for it is his obligation as chief assistant to the president in this field to indoctrinate the whole force in the problems of personnel and the spirit of human relationships. One of the greatest personnel men in industry, E. K. Hall, held consistently to this conception of personnel work. He worked incessantly toward the achievement of this end, and with

a large measure of success. So let every executive consider himself the personnel man of his group, with a high feeling of trusteeship for the growth, well-being, and contentment of all those who depend upon him for leadership.

4. *The philosophy of personnel management.*—As an attempt was made in the beginning to develop the philosophy that forms the foundation for the best in human relationships, let us now review it in further support of the detailed development of its application. Modern philosophers heartily support the development of wise personnel policies in industry. John Dewey, Elton Mayo, L. P. Jacks—to mention but three of our best—unconsciously or specifically give their support to the wisdom of industrial leaders in the development of their personnel policies. John Dewey develops the thesis that the height of intellectual development can come only through the application of intelligence to the concrete problems of life. Elton Mayo holds for such development in industrial relations as will promote pleasurable and optimistic mental preoccupations in the minds of all employees. Dissatisfaction, discontent, and maladjustment to working environment promote pessimistic mental preoccupations and markedly reduce the efficiency of the worker.

L. P. Jacks, in his work on "Constructive Citizenship," while he is writing on civilization as a whole, has built a philosophical structure that might well be used as a guide for personnel workers in industry.

He develops his whole structure for the sure upbuilding of our present industrial civilization on the mystic triangle of skill, trusteeship, and the scientific method. Skill he defines as wisdom in action and gives short shrift to knowledge, reason, and wisdom if they are not applied in action to the solution of problems on the realities of life. The lasting satisfactions of life come out of work well done—work performed skillfully, manfully. All difficulties in life can be surmounted through the application of skill, which is wisdom in action. This conception has deep expression in the solution of the personnel problems in industry today. All of the undertakings having to do with selection and training have as their chief objective the development of skill. Through right selection, the man finds himself placed in a position fitted to his aptitude, ability, and capacity, and is ready for the development of his skill to the highest pitch of excellence. Training gives him opportunity for the development of that skill and the satisfactions that come from full accomplishment.

5. *Significance of "skill" in an occupation.*—Let us not make too narrow a definition of the word "skill," for it applies to all of the occupations within the organization. Skill in the crafts, skill in supervision, and skill in executive ranks, all need encouragement, instruction, and guidance in development to their full capacity. The full success of the whole organization depends upon the development of the highest degree of skill in each of its individual members.

6. *The spirit of trusteeship.*—The spirit of the organization is built up to the highest degree when every member of it holds his obligation to his fellow workers as a sacred trust. Trusteeship is the term which embodies that obligation and which finds its expression in faithful service between the employer and the employed, between the leader and the led, between management and men, and it is given concrete expression in the undertakings of a wise personnel policy. As in selection and training, where provision has been made for the worker's development and growth and the satisfaction of his urge for progress, so, in the field of employee representation, benefits, pensions, thrift, medical service, and similar activities, do we contribute to the well-being and security of the employee and thus discharge our trust. These are visible evidences of the spirit of trusteeship, and, as was shown in defining the responsibilities of all executives toward personnel problems, this spirit should pervade the whole atmosphere of the working environment, expressed in fair dealings and skillful, human leadership.

7. *Value of the scientific method.*—The scientific method is all-comprehensive in its application to the problems of industry. Without attempting to discuss its importance in relation to material things, which has long been recognized by industry, we find that the scientific method enters vitally into the scheme of personnel organization. Nothing can contribute more satisfaction to the individual than to be a mem-

ber of an organization in which the whole human structure has been built up on a sound scientific basis clearly defining the duties and responsibilities of individuals, the definite contribution which each of them makes to the objective of the business, and the correct interrelationships between them. All through this Text we have advocated the scientific attitude in the attack on all problems dealing with human relationships. The solution of personnel problems depends upon the determination of facts and a measuring of the value of each undertaking.

To indicate what is meant, through a few illustrations, we must study turnover to discover the reasons for separations, to relate them to causes of dissatisfaction so that we can remove these causes. Intensive study should be given to age distribution in its relationship to benefits and pensions. Careful and continuous consideration and checking must be given to the worker's training, development, increased responsibilities, length of service, and the relationship of these factors to his remuneration. The continuing development of job specifications and a study of them will give a basis of more accurate evaluation of the contribution each job holder makes to the whole, and thus form a basis for better wage and salary differentials.

The importance of a scientific development of the selection process on a firm psychological basis is evident. After all, the scientific method as a tool for the development of right human relationships is no

more than a determination and an analysis of the facts, and a synthesis that will lead to right determinations. In no realm of human endeavor is it more important to be right than in our dealings with our comrades in industry.

Furthermore, the scientific method compels us to look far into the future. Opportunism has no place in dealings with human problems. The consequences of our actions today must be projected into the years to come and we must be sure that present values will continue permanently, as far as is humanly possible.

8. *Vision and inspiration.*—Personnel management, then, concerns itself with the development of policies that seek to bring out and develop the best qualities in each individual and to give him opportunity to attain the highest degree of skill; policies that will satisfy his urge for security and through it give him a freedom to take full advantage of his opportunities, without fear. With the policies well established, let it be realized that their successful application is a challenge to the highest coöperative endeavor of all members of management, and let the personnel manager feel the sense of full achievement if he has contributed much toward making them all trustees of their fellows and throughout the whole organization has developed the joy of living into the joy of work.

### REVIEW

Point out how personnel management becomes a distinct responsibility of every member of the management group.

Indicate the place of the foreman in the personnel program.

What place has philosophy in the consideration of personnel policies?

State the significance of skill in an occupation.

Explain the application of the spirit of trusteeship in personnel management.

Outline the value of utilizing the scientific method in studying personnel problems.

What vision should the personnel manager have of his opportunities?

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